COMODO
Creating Trust Online®

Comodo Web Inspector

Software Version 1.0

Administrator Guide

Guide Version 1.0.010215

Comodo Security Solutions
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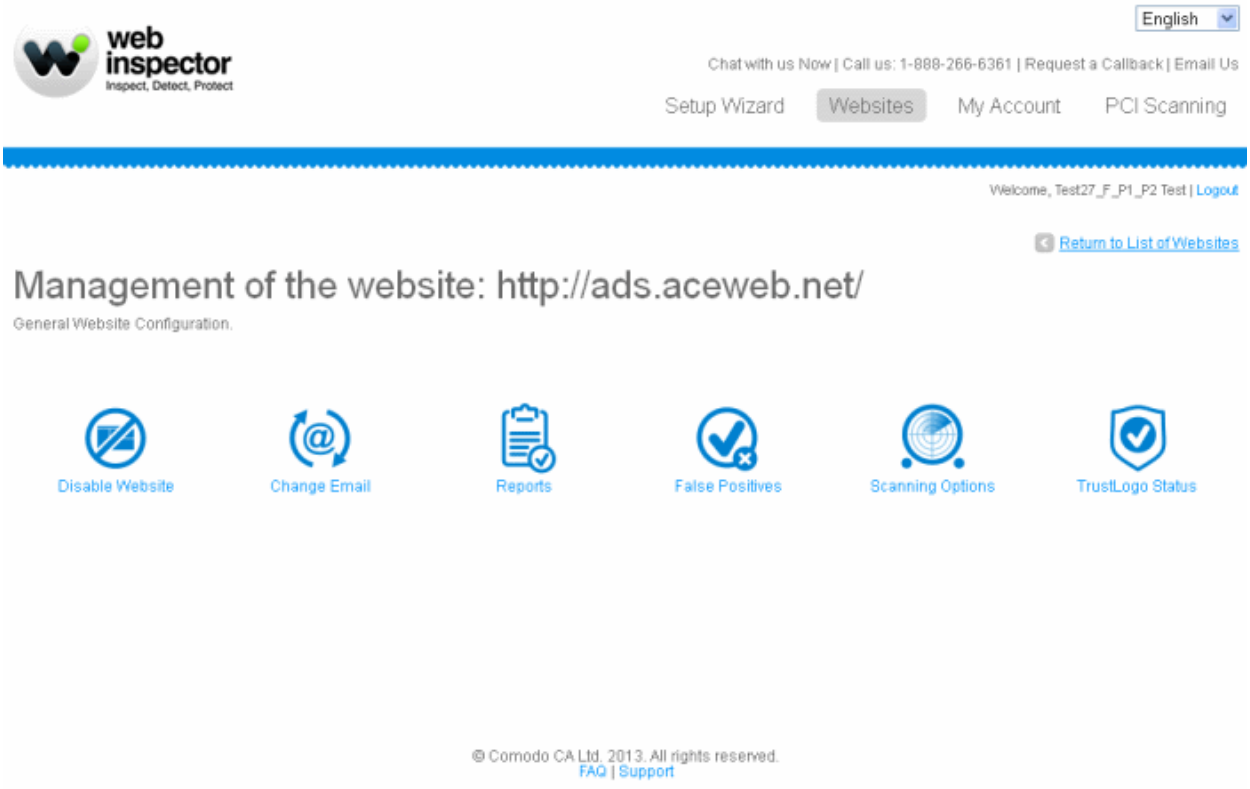
1 Introduction to Comodo Web Inspector

Comodo Web Inspector is a powerful malware and blacklist monitoring service for websites. If malware is discovered or if the website is found on any one of a range of website blacklisting services, then the account owner is immediately notified via email. This early warning system helps save thousands of website owners per year from the potentially catastrophic effects of seeing their website blacklisted. Web Inspector also incorporates a fully fledged PCI Scan Compliance solution powered by HackerGuardian technology. This enables qualifying merchants to meet the network vulnerability criteria laid out in section 11.2 of the PCI guidelines. The Web Inspector PCI solution also offers a free compliance wizard to guide merchants through all other requirements of the guidelines.

Web Inspector features and benefits:

- Automatic, daily malware scans of all website pages (including any sub-domains)
- Daily checks that your website is not present on any Internet blacklists
- Immediate notification if problems are discovered
- Full reports and threat mitigation advice
- Includes PCI compliant network vulnerability scanning service
- Site seal assures customers that your website is malware-free and trustworthy
- Easy, web based interface means you can be up and running 5 minutes after sign up



Guide Structure

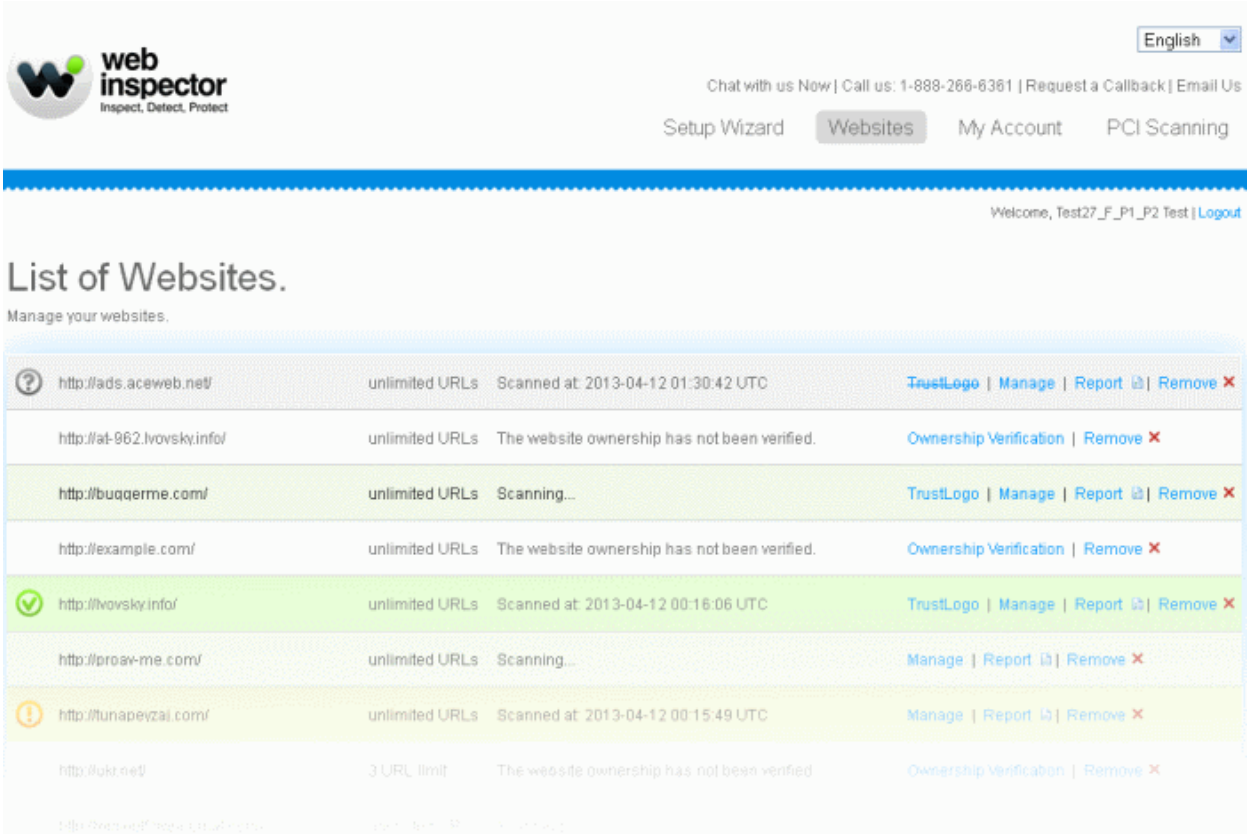
This guide is intended to take you through the use of Comodo Web Inspector and is broken down to the following main sections:

- **The Administrative Interface** - Provides a snapshot of main functional areas of Web Inspector
  - **Logging-in to the Administrative Interface** - How to login to the Web Inspector interface

- **Adding Website for Daily Blacklist Monitoring and Malware Scanning** – How to add websites for WI scans
- **Managing Websites in Web Inspector**- How to add websites for malware scanning and blacklist monitoring
  - **Removing a Website from Daily Blacklist Monitoring and Malware Scanning**
  - **Viewing Last Scanned WI Reports**
  - **Adding WI Trust Logo to your Website**
  - **Validating your Website**
  - **General Website Configuration**
- **My Account** - How to manage your account at Comodo Account Manager (CAM)
  - **Web Inspector Area**
  - **My Account**
  - **Help**
  - **Contacts**
- **PCI Scanning** - How to set up PCI scanning on your network
  - **Starting up with Web Inspector PCI Scanning Service**
  - **PCI Scanning Service - Infrastructure**
  - **PCI Scan**
  - **Internal Scanning**
  - **Account Preferences and Scan Settings**
  - **Scheduled Scans**
  - **Web Inspector PCI Reports**
  - **Purchasing Additional IP Packs**
- **Web Inspector PCI FAQs** - Frequently asked questions about Web Inspector PCI
  - **Web Inspector Services - General FAQs**
  - **Web Inspector Services – Technical FAQs**
  - **PCI FAQ**

2 The Administrative Interface

The main interface of Comodo Web Inspector (WI) allows administrators to have overall control of adding or removing websites for daily blacklist monitoring and / or daily malware scanning, configuring, PCI scanning and to view the report results. The image below shows the administrative interface after logging in.

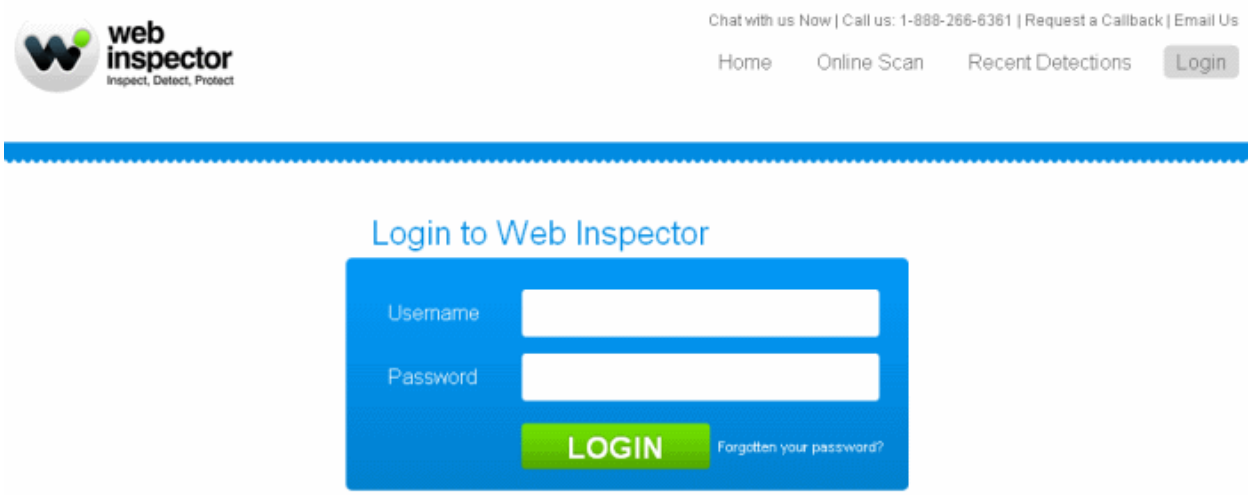


Main Functional Areas

- **Setup Wizard -** In this area, an administrator can add websites for daily blacklist monitoring, malware scanning services, general vulnerability scanning and PCI vulnerability scanning. See the **Adding Websites for Daily Blacklist Monitoring and Malware Scanning** section for more details.
- **Websites** - In this area, an administrator can manage the added websites such as remove, enable or disable websites from the list in this interface and view reports. This area also allows an administrator to website configuration and more. See the **Managing Websites in Web Inspector** section for more details.
- **My Account** - Provides details of your account in the CAM interface. See the **Managing Your Account** section for more details.
- **PCI Scanning** - In this interface, an administrator can perform vulnerability assessment scanning of the website to achieve PCI scan compliance. See the section **PCI Scanning** for more details.
- **FAQ** - Answers to the mostly commonly asked questions regarding Web Inspector.
- **Support** - Clicking the **Support** link at the bottom right of the interface takes you to the Comodo support portal, an online knowledge base and support ticketing system. The support portal is one of the fastest ways to get assistance from Comodo support staff on any Web Inspector questions you may have. Registration is required. Please remember to include your order number when you submit a ticket.

2.1 Logging-in to the Administrative Interface

Web Inspector customers can login into the service by visiting **http://app.webinspector.com/login**



If you don't remember your password, click the 'Forgotten your password?' link.

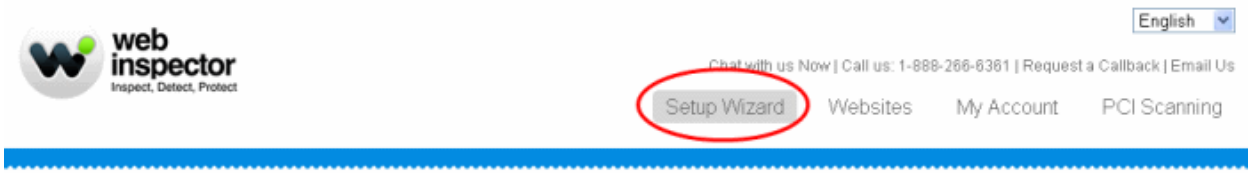
2.2 Adding Websites for Daily Blacklist Monitoring and Malware Scanning

Major search engines including Google, Yahoo and Bing will blacklist a website if they determine that it is malicious. This can happen, for example, if the site is found to host malware or because the site has been used for fraudulent activities such as phishing. Blacklisted sites will not be listed in search results and website visitors will be shown a strongly-worded message of warning whenever they try to visit the site. This is especially significant when you consider hackers can infiltrate a legitimate website and use it to host their attacks *without* the owners knowledge. Innocent businesses can often find their websites blacklisted through no misdemeanor of their own.

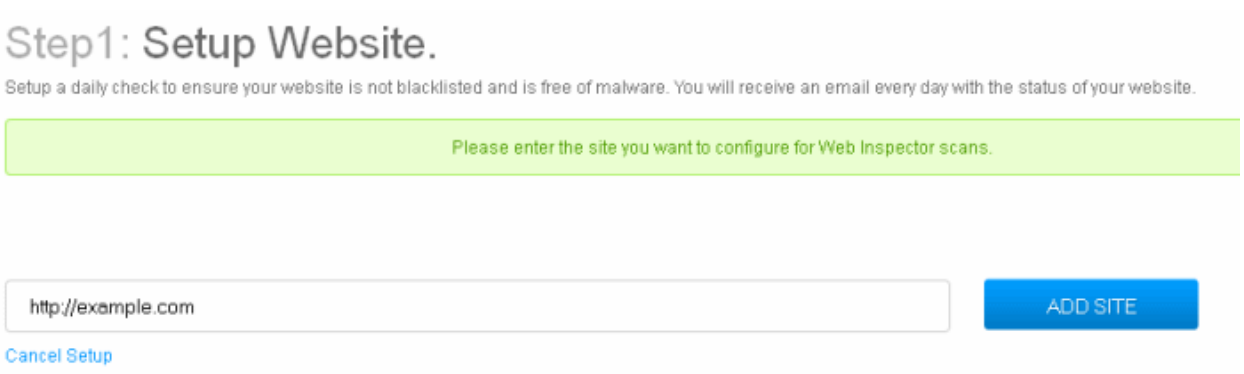
Web Inspector checks all the major website blacklists for your websites on a daily basis. You will receive immediate notification if one of your sites is found, enabling you to take appropriate remedial action. Of course, the malware scanning component of Web Inspector will thoroughly check your website for viruses on a daily basis and will notify you *before* the search engines ever find out.

To add a website for daily blacklist monitoring and malware scanning

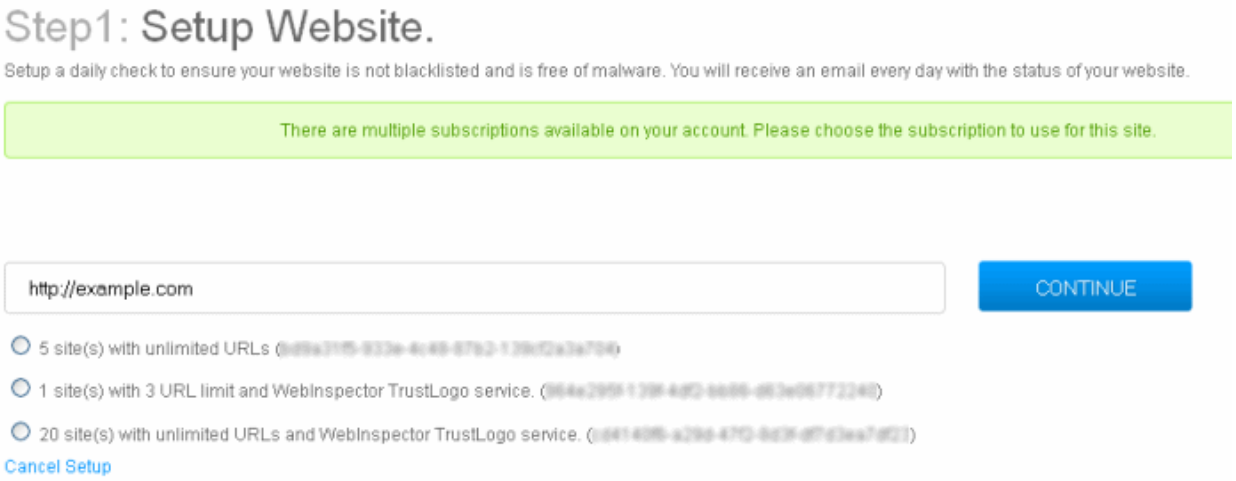
- Click 'Setup Wizard" at the top of the interface:



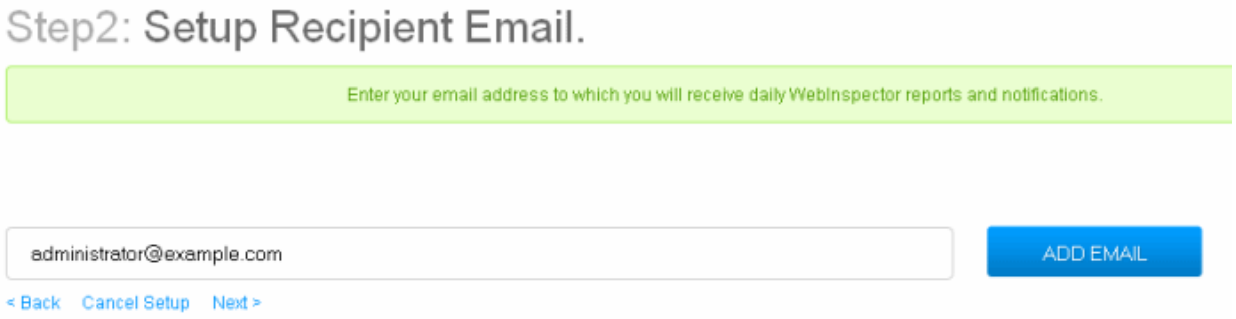
- Step 1 - Enter the URL of the website that you want to add in the text box.



- Click the 'ADD SITE' button.



- If you have multiple Web Inspector account subscriptions, select the subscription package to which you want add the website and click the 'Continue' button.
- Step 2 – Enter the email address to which the Web Inspector reports and notifications will be sent daily.



- Click the 'ADD EMAIL' button or 'Next'.

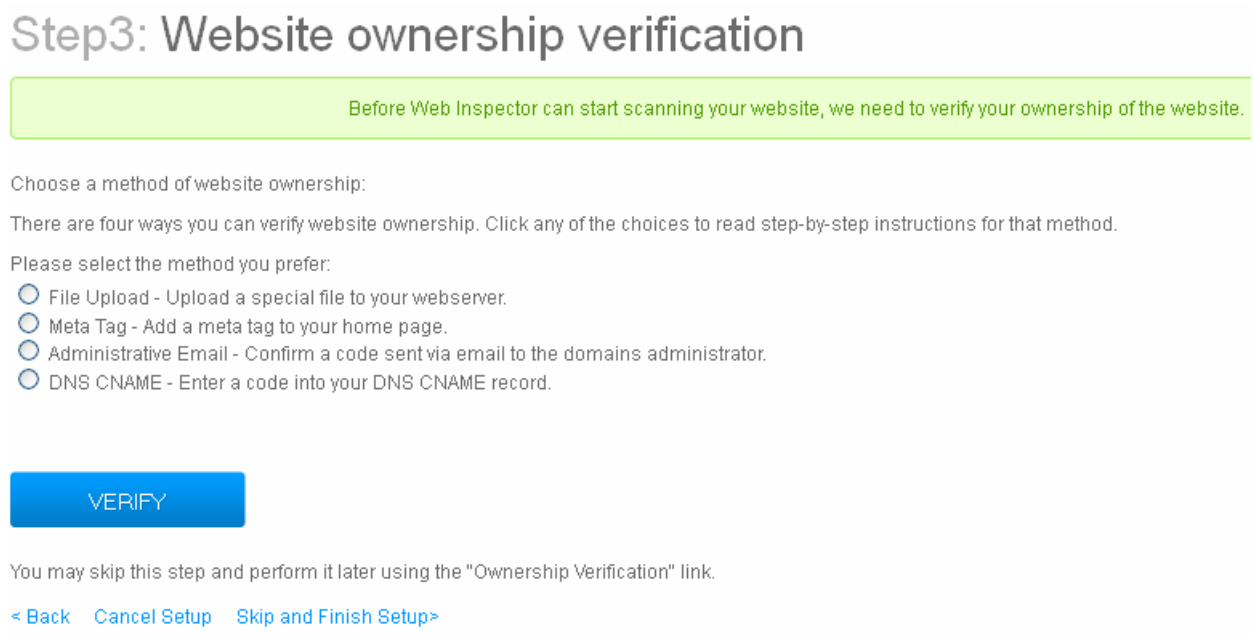
You can review the entries or cancel the website add process by clicking 'Back' or 'Cancel Setup' respectively anytime during the process.

- Step 3 – Website ownership verification. You have to demonstrate ownership of the domain before WI can start scanning the website.

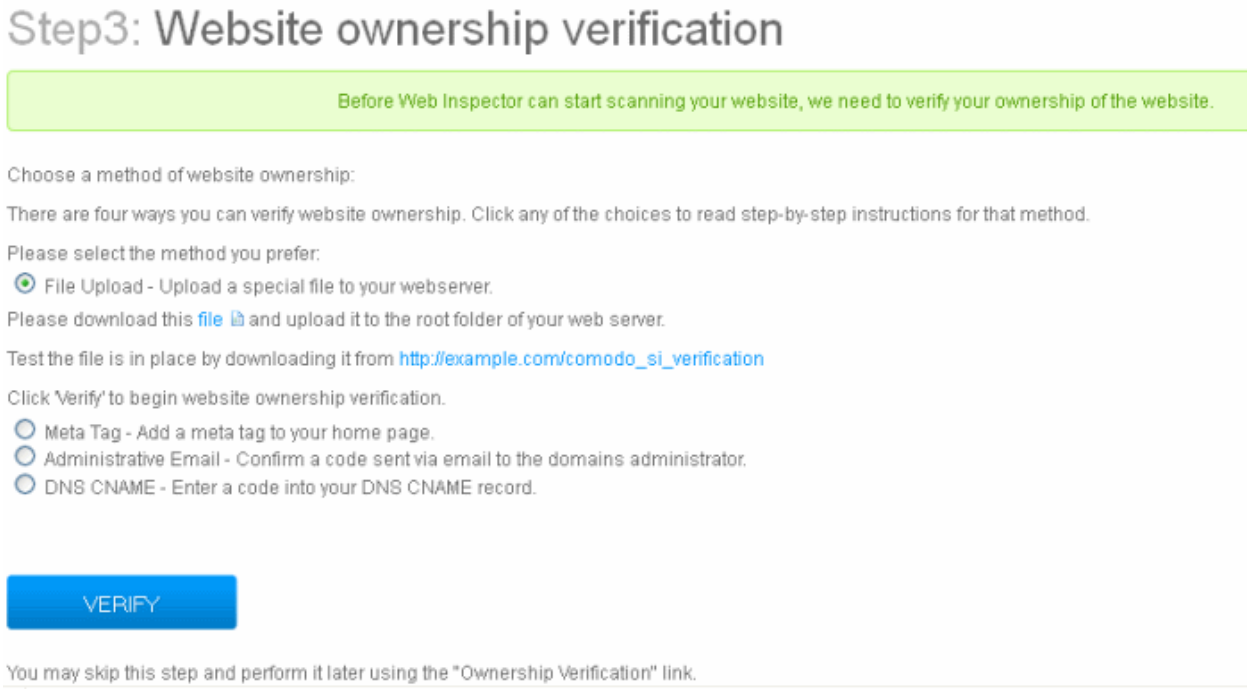
Note: You can also choose to skip the website ownership verification at this moment by clicking 'Skip and Finish Setup' link at the bottom. Please refer to the section **'Validating your Website'** if you want to validate your website at a later time.

There are four methods available for authenticating your website:

- **File Upload**
- **Meta Tag**
- **Administrative Email**
- **DNS CNAME**

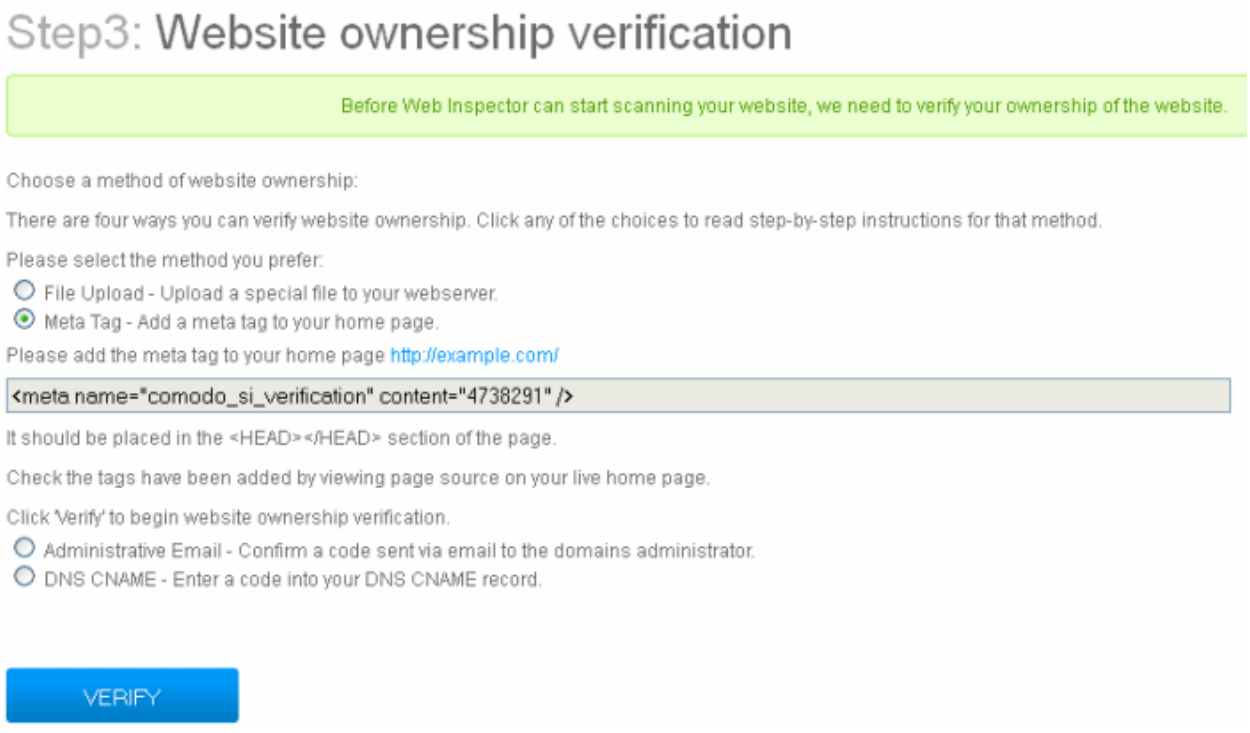


File Upload - You download a specific .txt file which is to be placed on the root of your web server. Comodo will run an automated check and verify domain control based on the presence of this file.



- Download the text file by clicking 'file'
- Upload it to root folder of your web server
- After the text file has been uploaded, click the 'VERIFY' button.
- Comodo will check for existence of this file to prove domain control
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type)*.

Meta Tag - Web Inspector will generate a unique tag which must be inserted into the meta-data of your home page html. Web Inspector will check this page and validate domain control based on the presence of the tag.

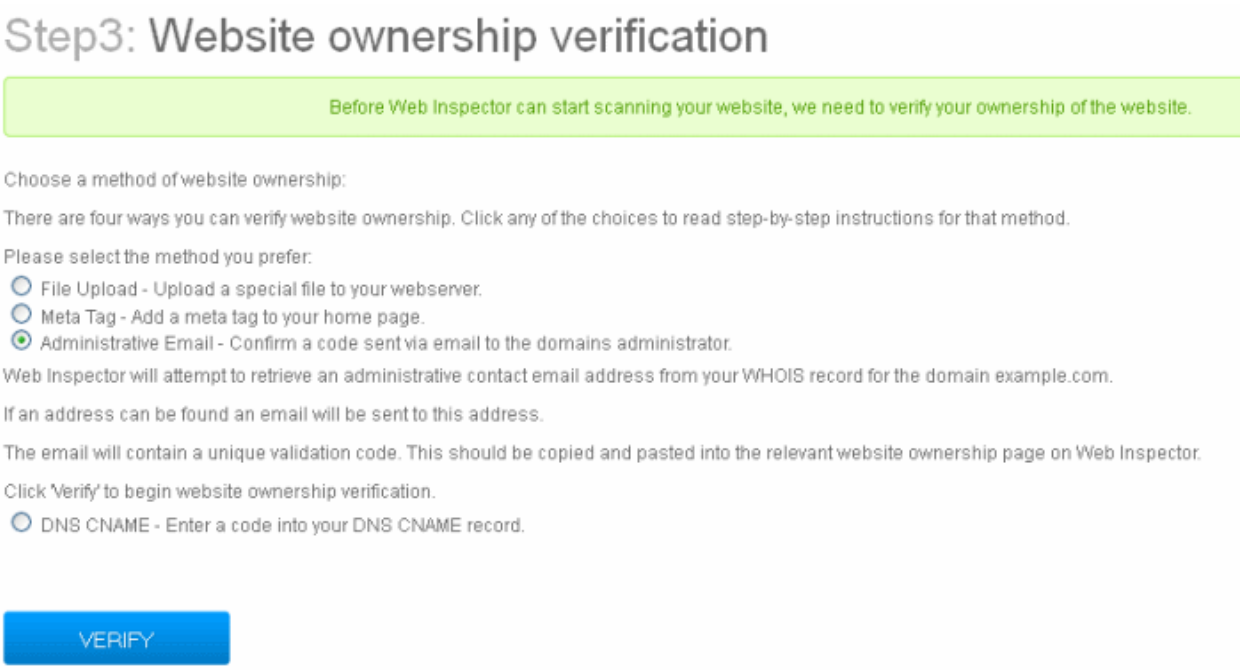


- Copy the meta tag from the text box and paste it into your website home page as a new line anywhere between

<Head> and </Head> tag

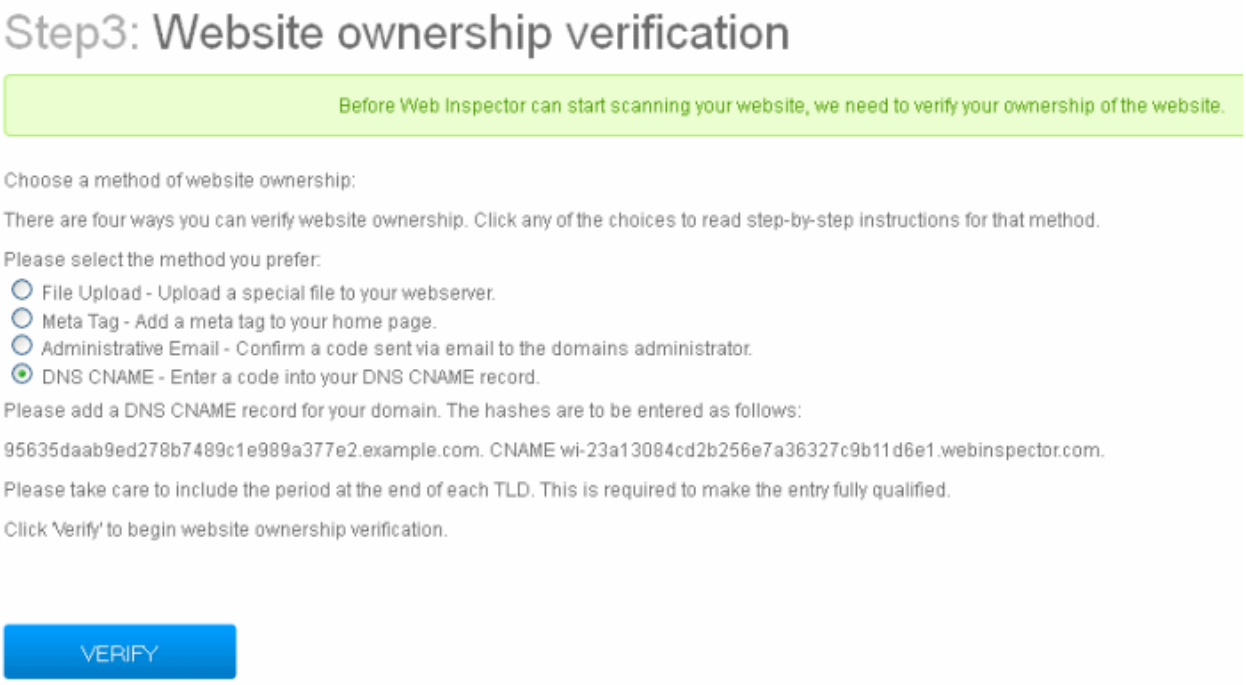
- Once this is done, click the 'Verify' button to initiate the verification check.
- Comodo will check for existence of the tag to prove domain control
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type).*

Administrative Email - Web Inspector will check the WHOIS database and send a validation code to the email address of the domain administrator.



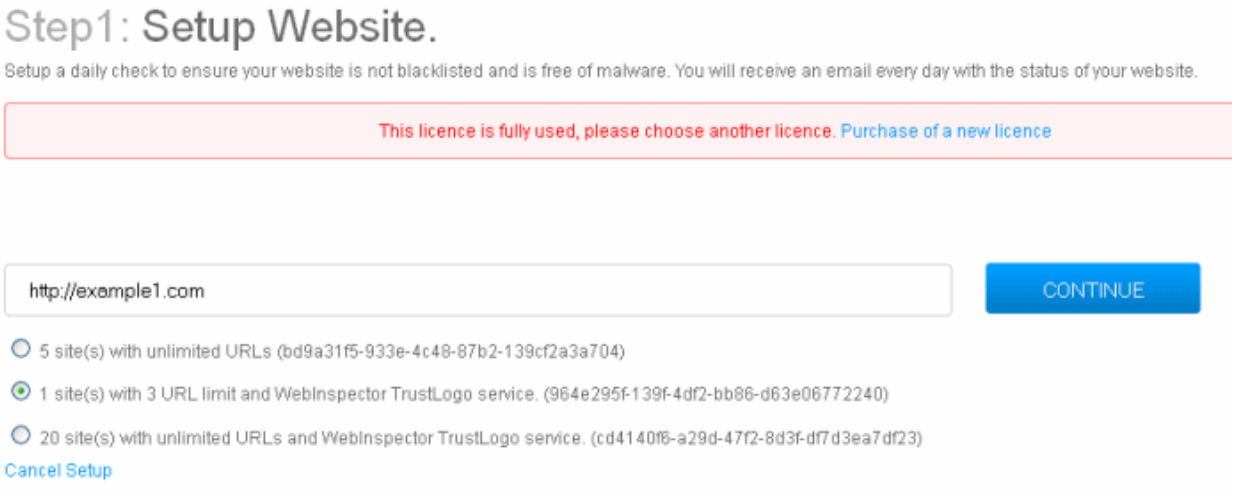
- Click the 'VERIFY ' button.
- Web Inspector will check for the administrative contact email address for the domain and if found in the WHOIS database, will proceed to Step 4.
- Click the 'SEND EMAIL' button. The verification code will be sent to the email address.
- Copy the code in the email and paste it in the text box in Step 5 and click the 'SUBMIT' button.
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain (*Note - the availability of 'TrustLogo' link depends on your subscription type).*

DNS CNAME - Web Inspector will generate a unique code which must be added into your DNS CNAME record.



- Copy the hashes from the text box and paste it into a note pad. The hash values must be entered as a DNS CNAME record for your domain.
- Once this is done, click the 'Verify' button to initiate the verification check.
- Comodo will check for CNAME to prove domain control
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type).*

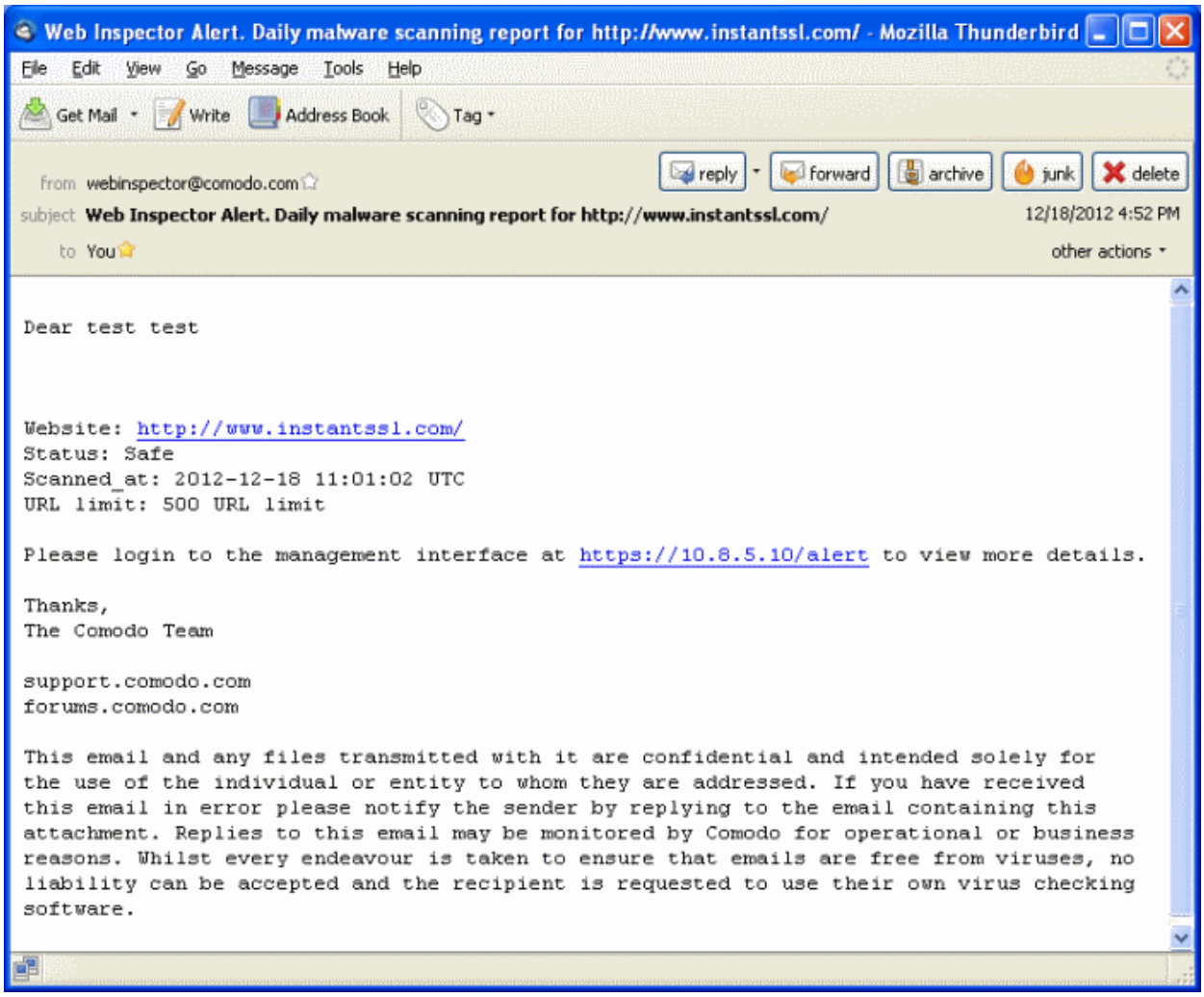
Repeat the processes outlined above to add more websites. If the number of websites exceeds the subscription plan for your account, a warning message will be displayed:



If you want to add websites without changing your subscription plan, disable a website that is currently in the list and repeat the process for adding a website. See the section '**General Website configuration**' section for more details.

Once website(s) have been added, the daily blacklist monitoring and malware scanning will begin at a predetermined time. After the first scan is completed, 'Report' links will be displayed beside the respective websites list in the interface. See the section '**Web Inspector Scan Reports**' for more details.

WI will be sending emails daily regarding the status of your websites, which will help you to take immediate remedial action in case of blacklisting any of your websites by major search engines. An example of a notification email is shown below.

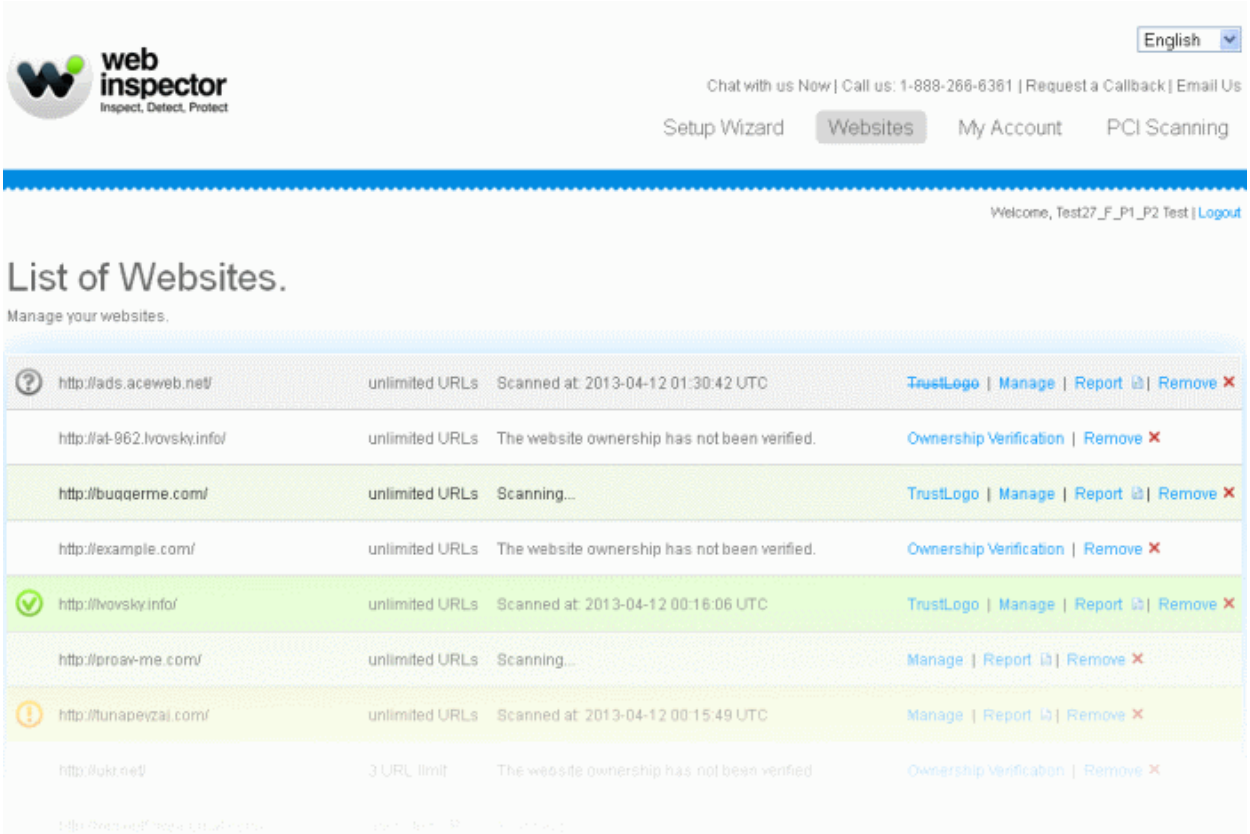


2.3 Managing Websites in Web Inspector

The 'Websites' area allows you to:

- **Remove websites from scanning / monitoring**
- **View last scanned WI reports on your domains**
- **Add a Web Inspector site seal to one of your web sites**
- **Validate ownership of website**
- **General website configuration of selected website**

To view this area, click 'Websites' at the top of the interface:

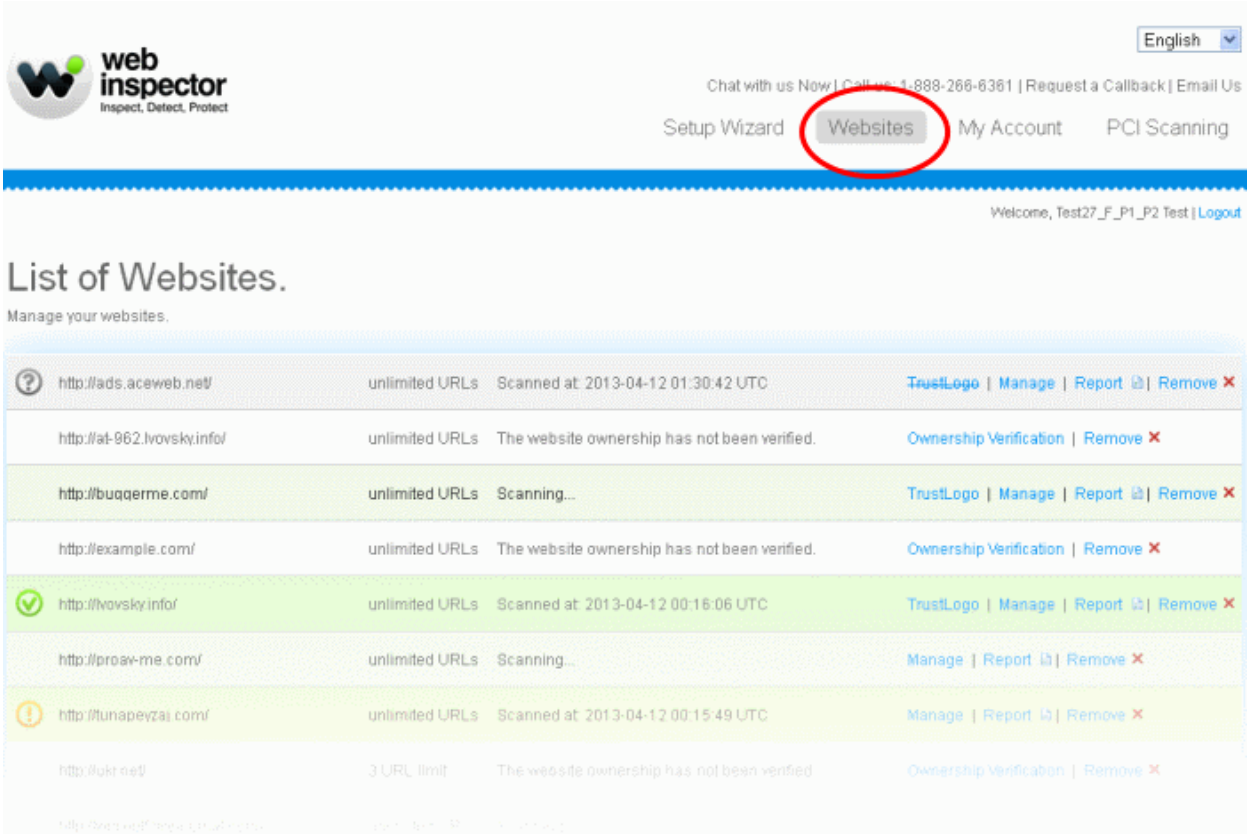


2.3.1 Removing a Website from Daily Blacklist Monitoring and Malware Scanning

If you want to remove a website from daily blacklist monitoring and malware scanning, this can be done in the list of websites interface.

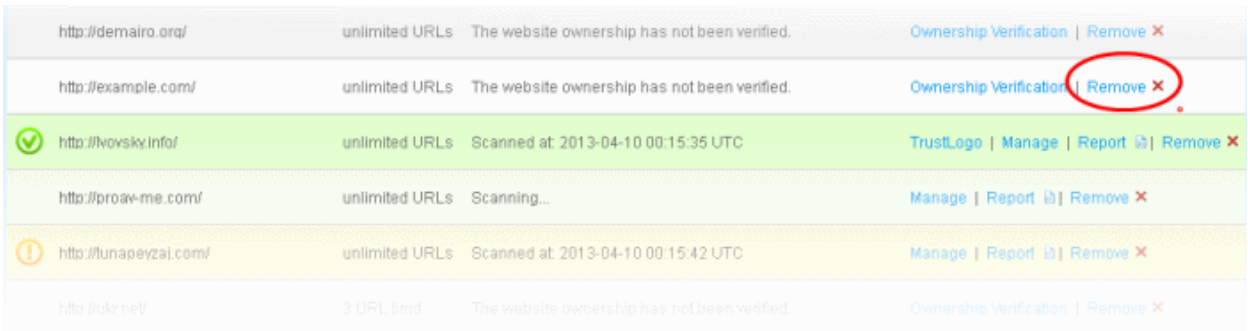
To remove a website from the list:

- Click 'Websites' at the top of the interface:



The list of websites added for daily WI scanning will be listed.

- Click the 'Remove' link at the far end in the row that you want to remove the website.



- Click 'OK' to confirm the removal.

2.3.2 Viewing Last Scanned WI Reports

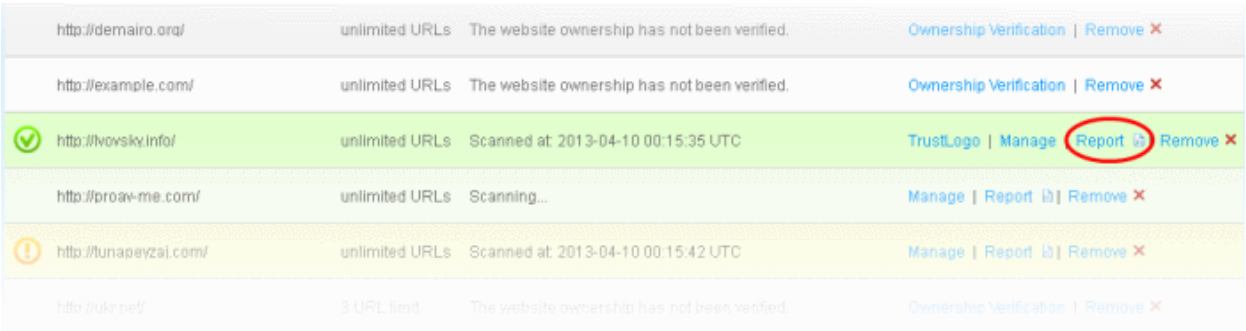
The Web Inspector Scan Reports are highly informative graphical summaries of the malware affected status of enrolled websites. WI Reports include:

- Scan reports of all the web pages of websites enrolled for Daily Malware Scanning
- Scan reports of index /home pages of the websites enrolled for Daily Blacklist Monitoring

To view the last scanned WI Reports:

- Click 'Websites' at the top of the interface:

The list of websites added for daily WI scanning will be listed.



- Click the 'Report' link at the end in the row of the website that you want to view the reports.

The report overview page of the last run WI scan will be displayed. Click the 'Details' link in the page to view the compete report of the last run scan.

To view the complete list of reports of the WI scan from the day of subscription for the website, click the 'Return to Reports List' link located at the top right side of the 'Report' interface.

Note: You can also view the complete WI reports in the **General Website Configuration** screen.

Refer to the section '**Web Inspector Scan Reports**' for more details.

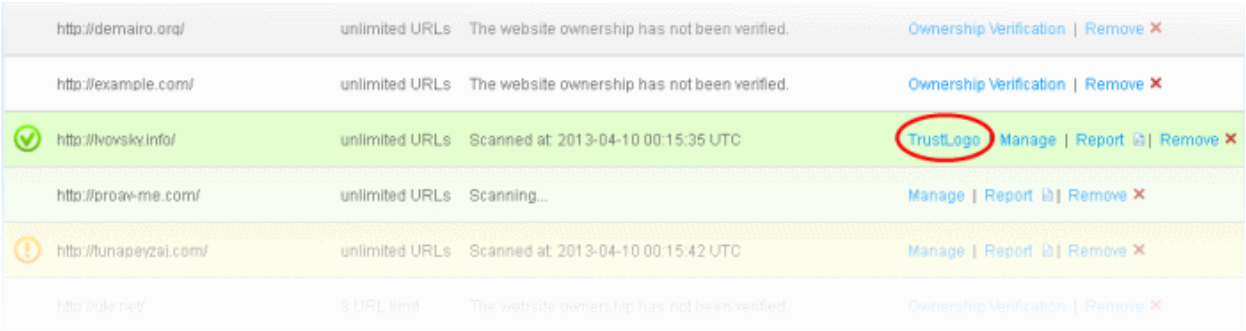
2.3.3 Adding the WI logo To Your Website

The Web Inspector Trust Seal is a symbol that conveys the message to your website visitors that the site is safe, secure, trusted and verified thus increasing the conversion rates of visitors to potential buyers.

To add Trust Logo to your website:

- Click 'Websites' at the top of the interface:

The list of websites added for daily WI scanning will be listed.



- Click the 'Trust Logo' link at the end in the row that you want to add the Trust Logo to the website.

Note: The availability of 'TrustLogo' link in the interface depends on the license that you have purchased. See the section **Subscribe WI services for more websites** in **Web Inspector Area** on how to purchase WI services with TrustLogo.

Note: You can also add TrustLogo at a later stage in the **General Website Configuration** screen.

Refer to the section '**Adding Trust Logo to your Website**' in **General Website Configuration** for more details.

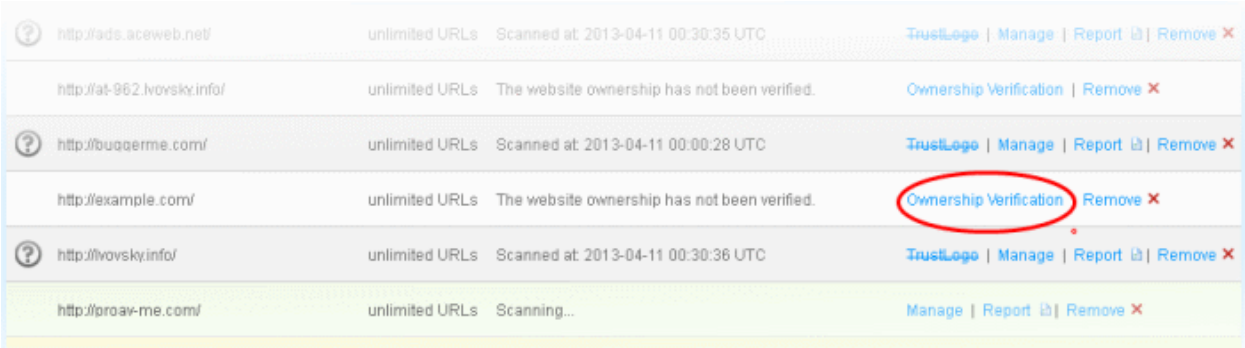
2.3.4 Validating your Website

If you have opted to skip validation of your website at the time of '**Adding Websites for Daily Blacklist Monitoring and Malware Scanning**', you can do so in the list of websites interface.

To validate website ownership:

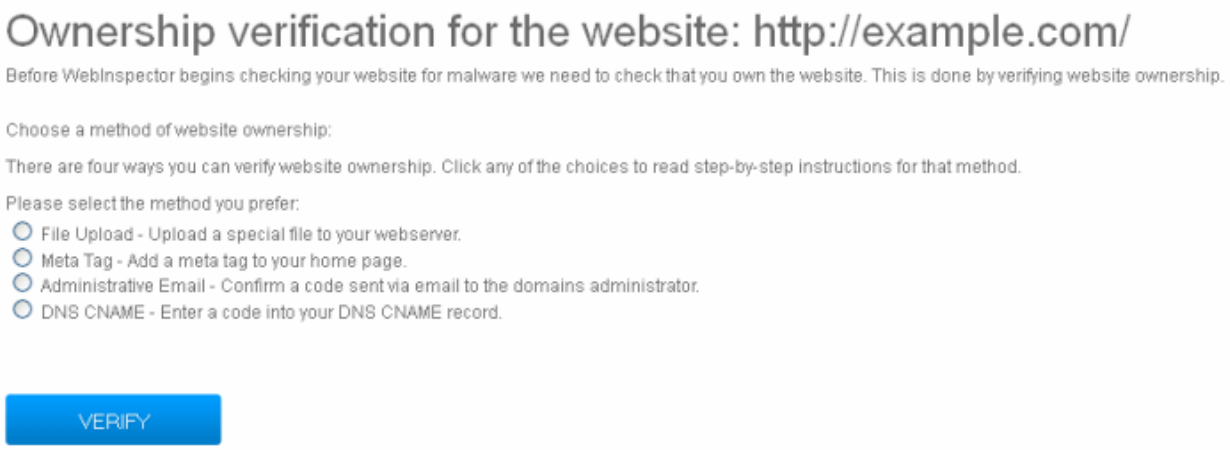
- Click 'Websites' at the top of the interface:

The list of websites added for daily WI scanning will be listed. The 'Ownership Verification' link will be displayed for the websites that have not been validated.



- Click the 'Ownership Verification' link at the end of row of the website for which you want to validate the ownership.

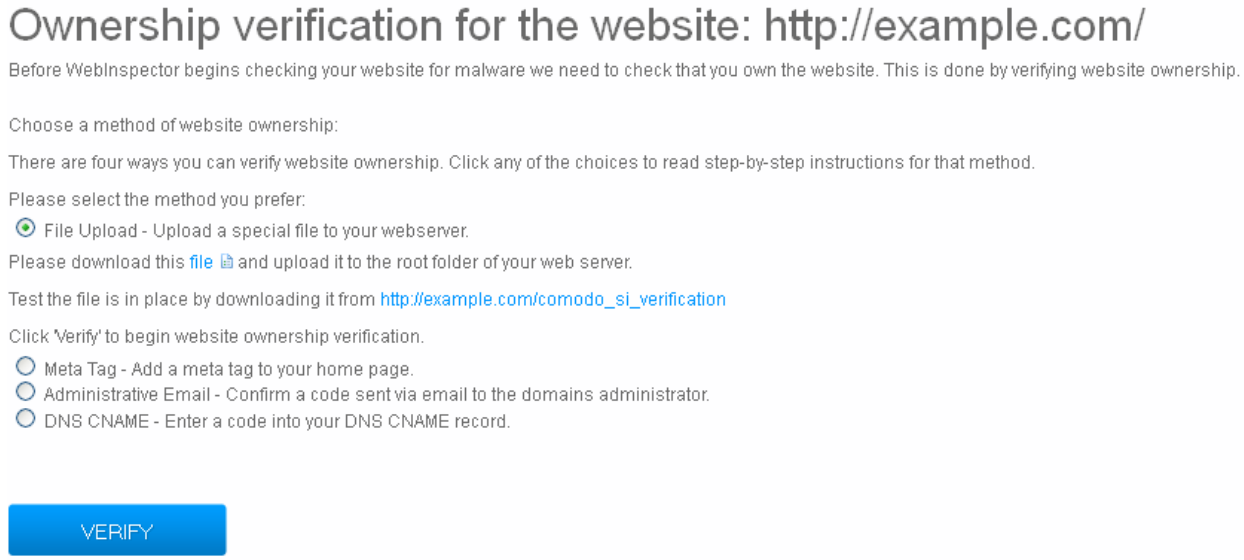
The Ownership Verification page for the selected website will be displayed.



There are four methods available for authenticating your website:

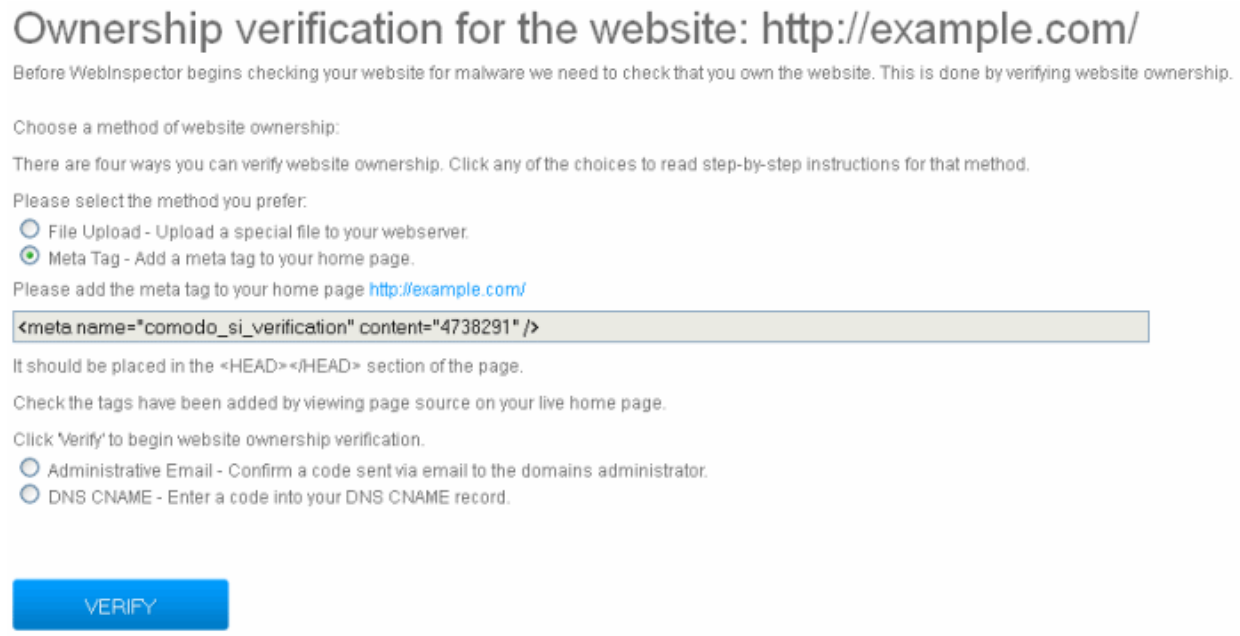
- **File Upload**
- **Meta Tag**
- **Administrative Email**
- **DNS CNAME**

File Upload - You download a specific .txt file which is to be placed on the root of your web server. Comodo will run an automated check and verify domain control based on the presence of this file.



- Download the text file by clicking 'file'
- Upload it to root folder of your web server
- After the text file has been uploaded, click the 'VERIFY' button.
- Comodo will check for existence of this file to prove domain control
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type)*.

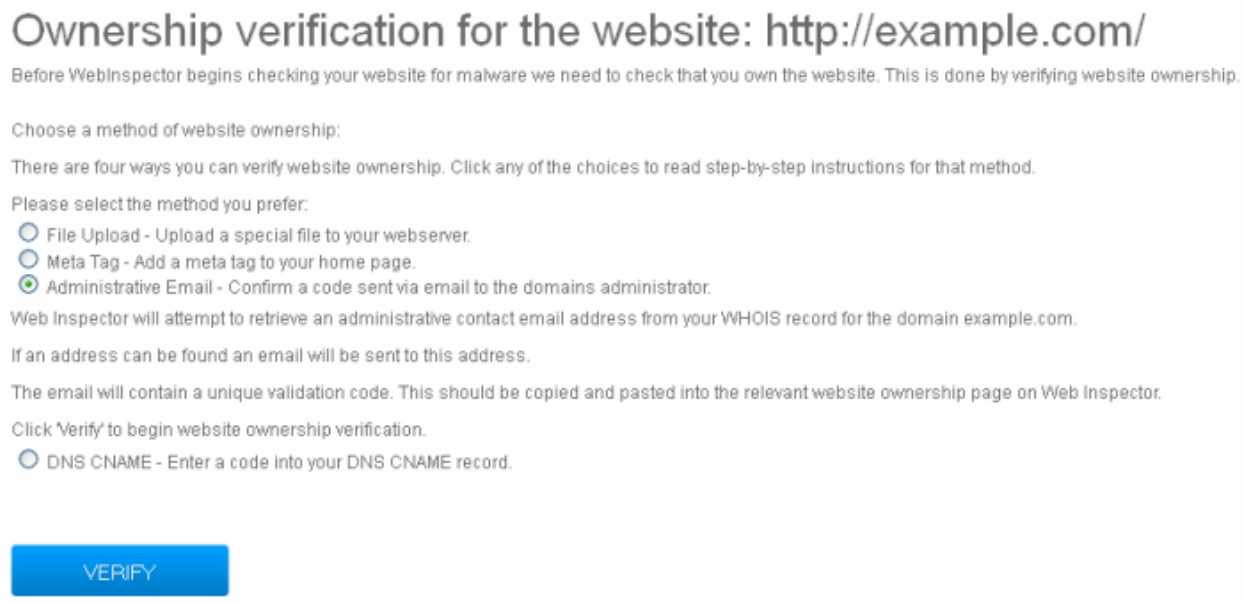
Meta Tag - Web Inspector will generate a unique tag which must be inserted into the meta-data of your home page html. Web Inspector will check this page and validate domain control based on the presence of the tag.



- Copy the meta tag from the text box and paste it into your website home page as a new line anywhere between <Head> and </Head> tag
- Once this is done, click the 'Verify' button to initiate the verification check.
- Comodo will check for existence of the tag to prove domain control

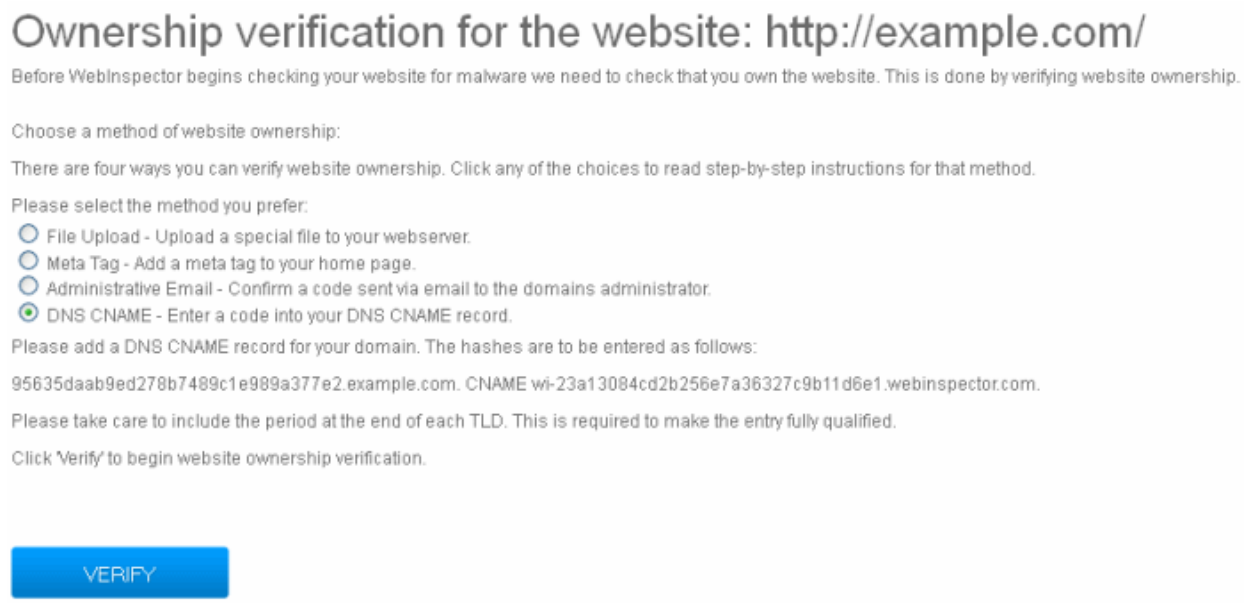
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type).*

Administrative Email - Web Inspector will check the WHOIS database and send a validation code to the email address of the domain administrator.



- Click the 'VERIFY ' button.
- Web Inspector will check for the administrative contact email address for the domain and if found in the WHOIS database, will proceed to Step 4.
- Click the 'SEND EMAIL' button. The verification code will be sent to the email address.
- Copy the code in the email and paste it in the text box in Step 5 and click the 'SUBMIT' button.
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type).*

DNS CNAME - Web Inspector will generate a unique code which must be added into your DNS CNAME record.



- Copy the hashes from the text box and paste it into a note pad. The hash values must be entered as a DNS CNAME

record for your domain.

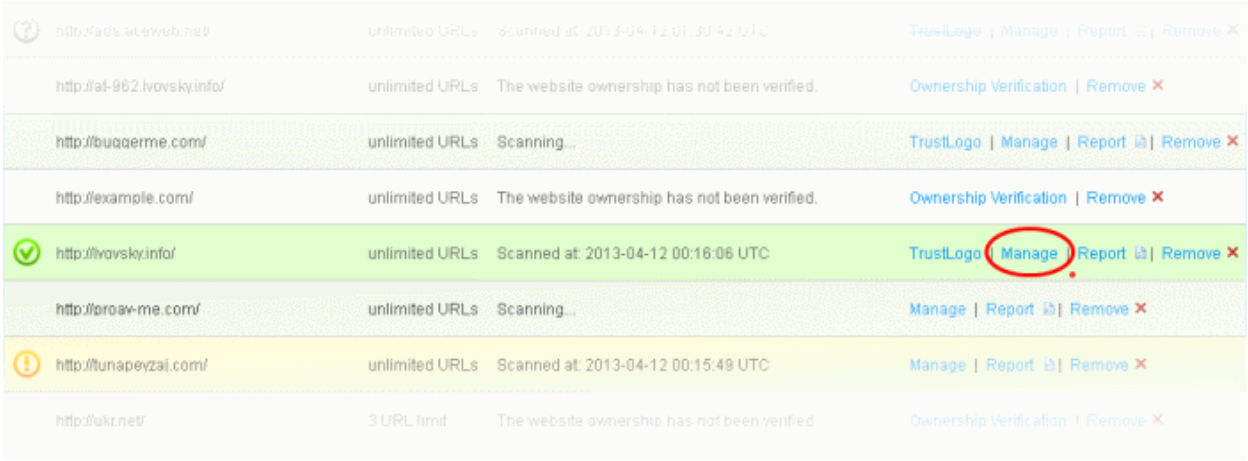
- Once this is done, click the 'Verify' button to initiate the verification check.
- Comodo will check for CNAME to prove domain control
- After successful verification, 'Manage' and 'TrustLogo' links will become available for that domain *(Note - the availability of 'TrustLogo' link depends on your subscription type).*

2.3.5 General Website Configuration

The General Website Configuration interface allows you to manage a selected website from the list such as disable/enable it from WI scans, change email address, view reports and more.

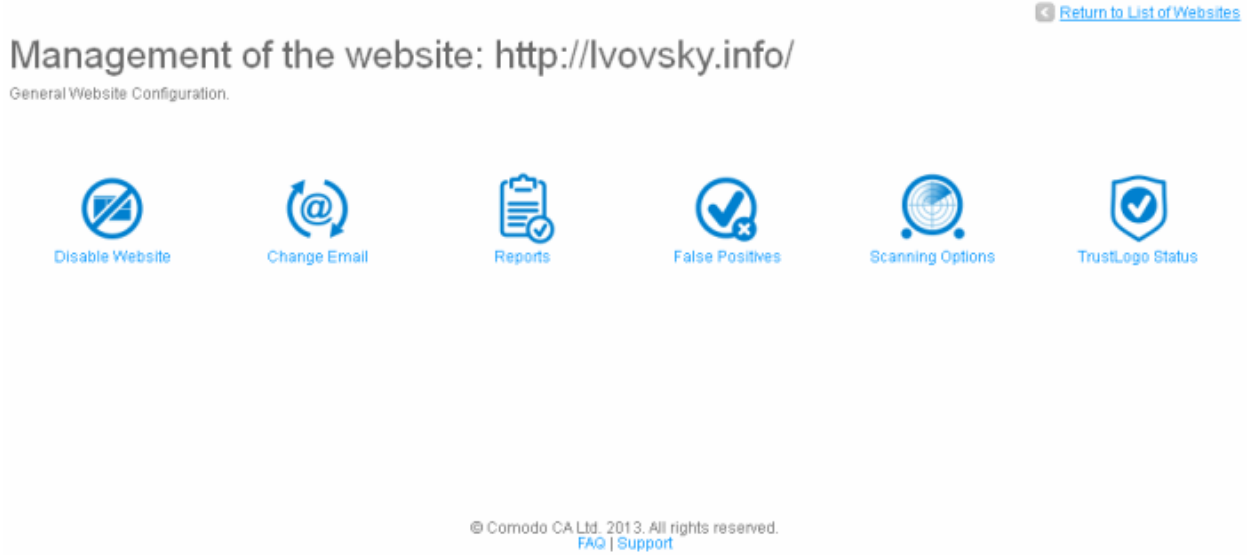
To access the configuration interface

- Click the 'Manage' link at the right side in the row of the website that you want to manage.



Note: The 'Manage' button will appear only after the ownership of the website has been successfully verified after adding it in Web Inspector. See the section '**Adding Websites for Daily Blacklist Monitoring and Malware Scanning**' for more details on how to add and authenticate ownership.

The General Website Configuration interface for the selected website will be displayed.



Click on the links below for more details on the options:

- **Disable / enable a website from WI scans**
- **Change email address to which the WI reports and notifications will be sent**
- **View and manage WI reports for a website**
- **View and manage false positive pages**
- **Scanning configuration options**
- **Adding TrustLogo to your website**

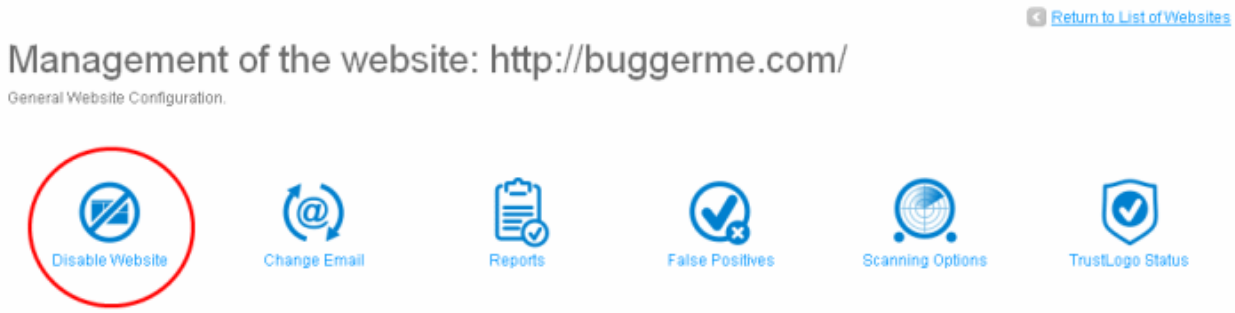
2.3.5.1 Disabling / Enabling a Website

If you do not want the Web Inspector to perform daily blacklist monitoring and malware scanning for a website, you can disable it in the General Website Configuration. You can also enable a website that has been disabled.

To a disable a website

- Click the 'Manage' link at the right side in the row of the website that you want to disable.

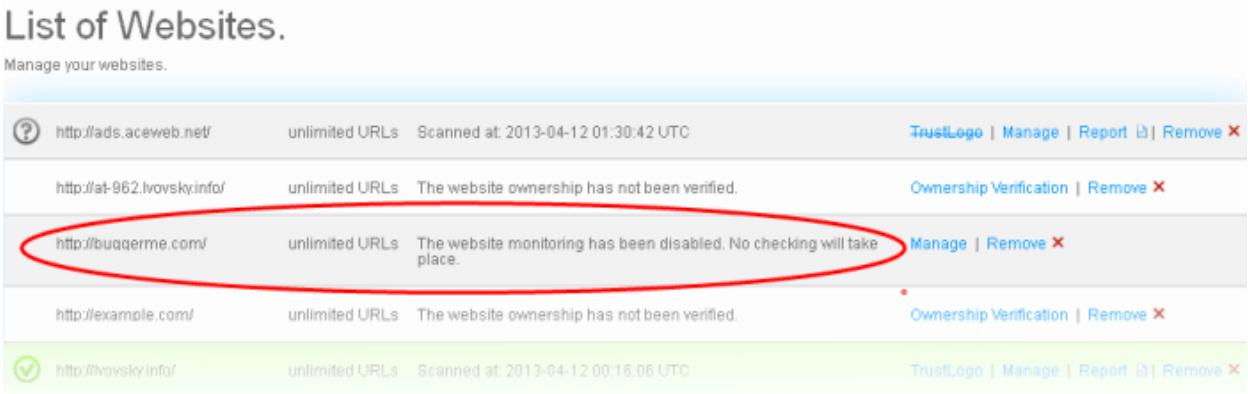
The General Website Configuration of the selected website will be displayed.



- Click the 'Disable Website' link.

- To confirm, click 'OK.

The website will be disabled and the interface will allow you to enable it again. The WI reports for the website will available even if it is disabled. The List of Websites interface will also display the website has been disabled.



To enable the website for WI scanning

- Click the 'Manage' link beside the website that you want to enable again.

- Click the 'Enable Website' link and click 'OK' in the confirmation dialog.

To view the reports of the disabled website click the 'Reports' link. Refer to the section '**Web Inspector Scan Reports**' for more details on WI reports.

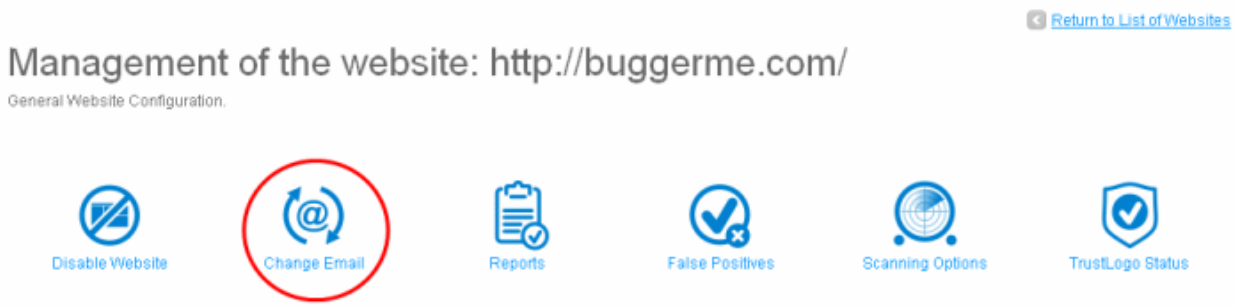
2.3.5.2 Changing WI Notification Recipient Email Address

Web Inspector will be sending notifications daily via email to the regarding the details of the website scanned, result of the scan and the time it was scanned. You can change this email address in the interface.

To change the email address

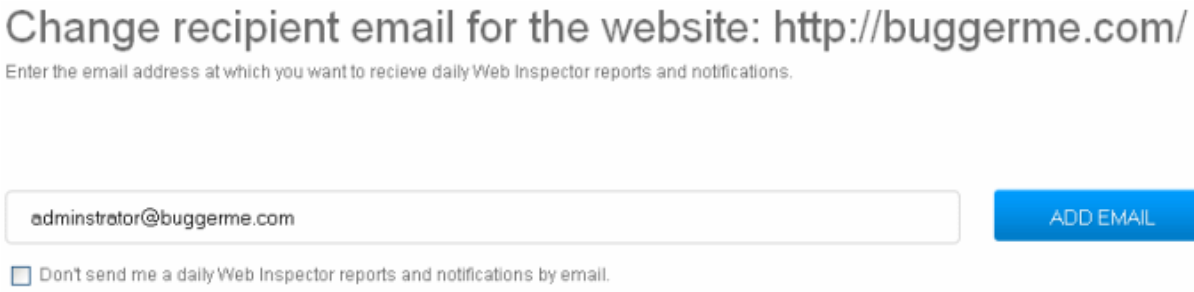
- Click the 'Manage' link at the right side in the row of the website that you want to manage.

The General Website Configuration of the selected website will be displayed.



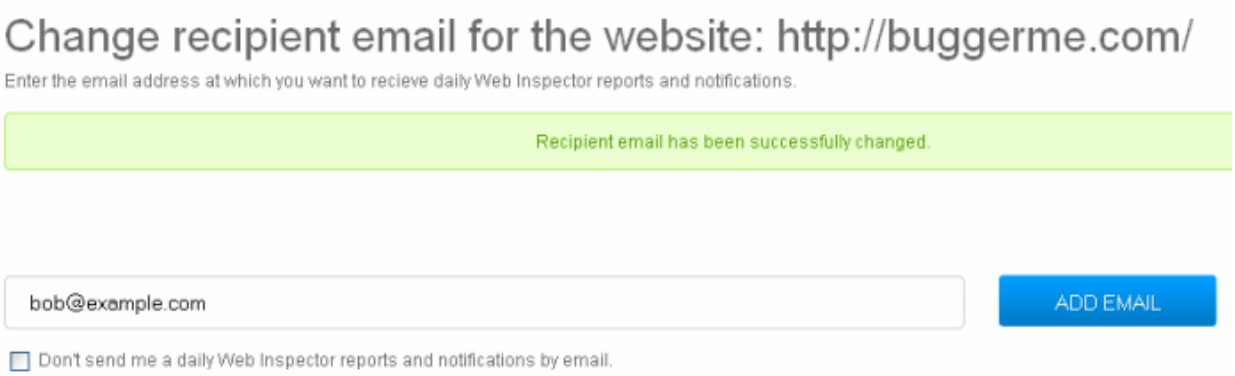
- Click the 'Change Email' link.

The current email address will be displayed.



- Enter the new email address in the text box and click the 'ADD EMAIL'.

The 'email successfully changed message' will be displayed.



- Select the 'Don't send me a daily Web Inspector reports and notifications by email' check box if you don't want to receive any notifications from Web Inspector.

2.3.5.3 Web Inspector Scan Reports

The Web Inspector Scan Reports are highly informative graphical summaries of the malware affected status of enrolled websites. WI Reports include:

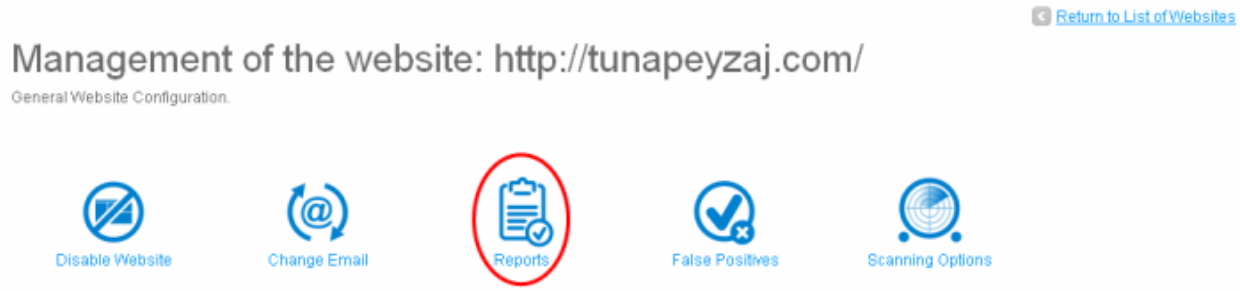
- Scan reports of all the web pages of websites enrolled for Daily Malware Scanning
- Scan reports of index /home pages of the websites enrolled for Daily Blacklist Monitoring

The 'Reports' interface displays a list of all the malware scan reports of the selected websites with the details on:

- the website/domain to which the report pertains
- the number of web pages (urls) scanned in that website
- creation date and time of the report

To view the last scan report of a specific website, click the 'Report' link at the right side in the row. Refer to '**Viewing Last Scanned WI Reports**' for more details.

To view the reports list of a specific website, click the 'Manage' link at the right side in the row and click the 'Reports' link in the 'General Website Configuration' interface.



The complete list of daily run WI scan reports for the selected website will be displayed.

In the Reports area:

- the sites identified as safe and free from malware are highlighted in green
- the sites identified as suspicious are highlighted in yellow
- the sites identified as unsafe and containing malware are highlighted in red
- the sites that produced inconclusive scan results are highlighted in gray

The 'Reports of the website' interface for the selected website allows the administrator to:

- **Filter the Reports**
- **View Detailed Reports of a website**
- **Remove outdated/unwanted reports**

Using the Filter options

Sorting Reports based on Report Types - The drop-down menu at the top-right enables you to select the reports to be

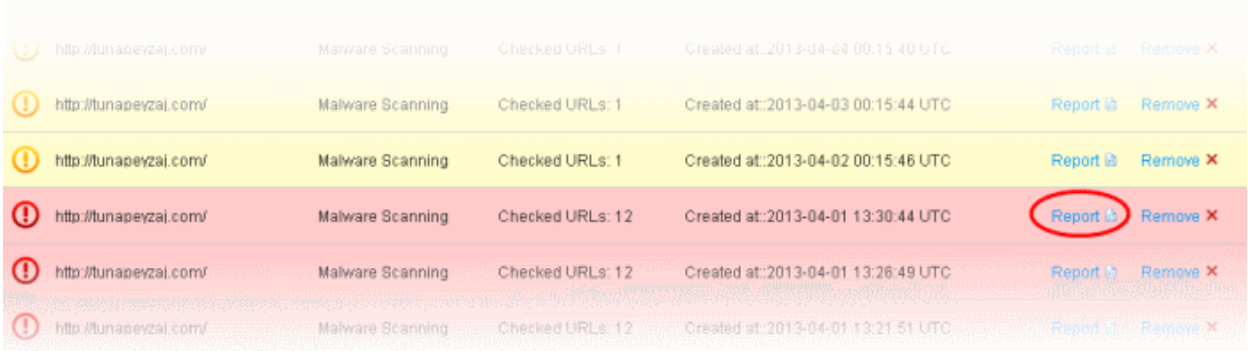
displayed based on scan results.

- Show all entries - Displays all the entries
- Show only Safe entries - Displays only the scan reports of the sites identified as safe and free from malware
- Show only Unsafe entries - Displays only the scan reports of the sites identified as unsafe and suspicious
- Show only Inconclusive entries - Displays only the scan reports of the sites on which the malware scanning yielded inconclusive results.

Limiting number of entries per page - You can limit the number of items displayed in the Reports page by selecting the option from 'Display' drop-down at the bottom.

Viewing Detailed Reports

The detailed scan report created on a particular date can be viewed by clicking the 'Report' link beside a listed item.



Tip: The most recent report for a specific website can be opened by clicking the 'Report' link against the website name in the 'List of Websites' interface. Refer to the section '**Viewing Last Scanned WI Reports**' for more details.

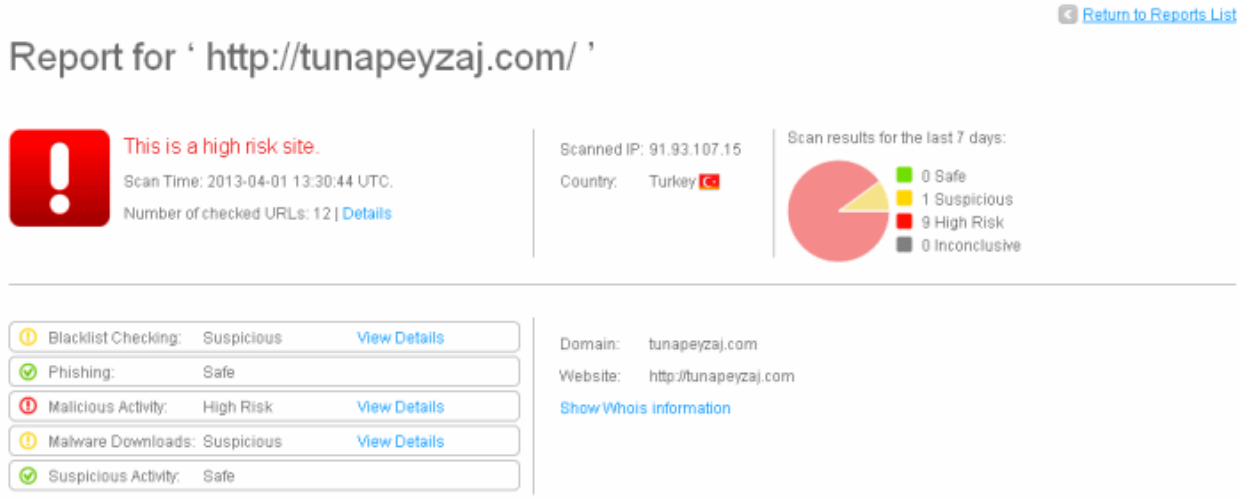
The report page is divided into two sections namely:

- **Report Summary** - Provides an at-a-glance summary of status of the website, number of pages scanned, domain registration and contact details. The Summary area also contains a link to open a list of report on unsafe URLs found on the same IP address.
- **Checked URLs** - Gives a list of web pages (URLs) in the website, which are scanned with individual results.

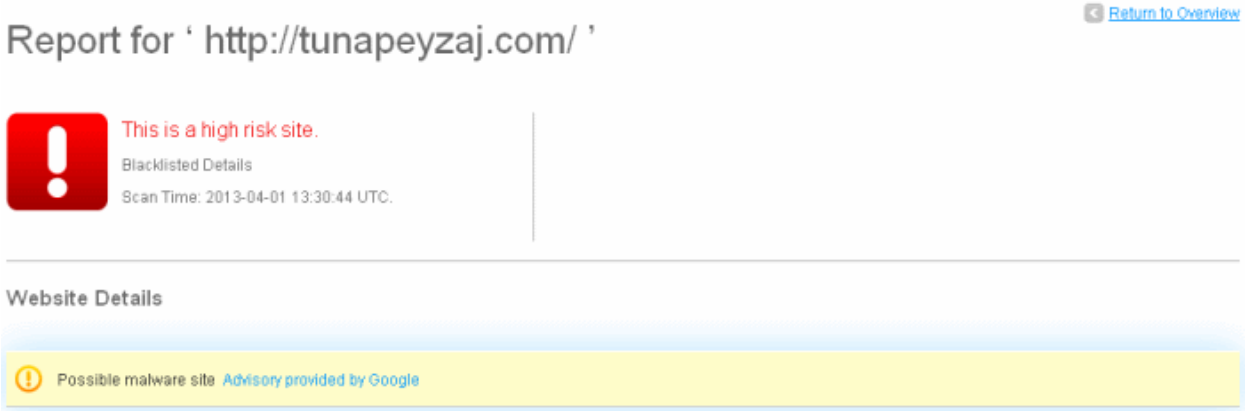
Report Summary:

The Report Summary area provides at-a-glance summary of the scan results. It also gives:

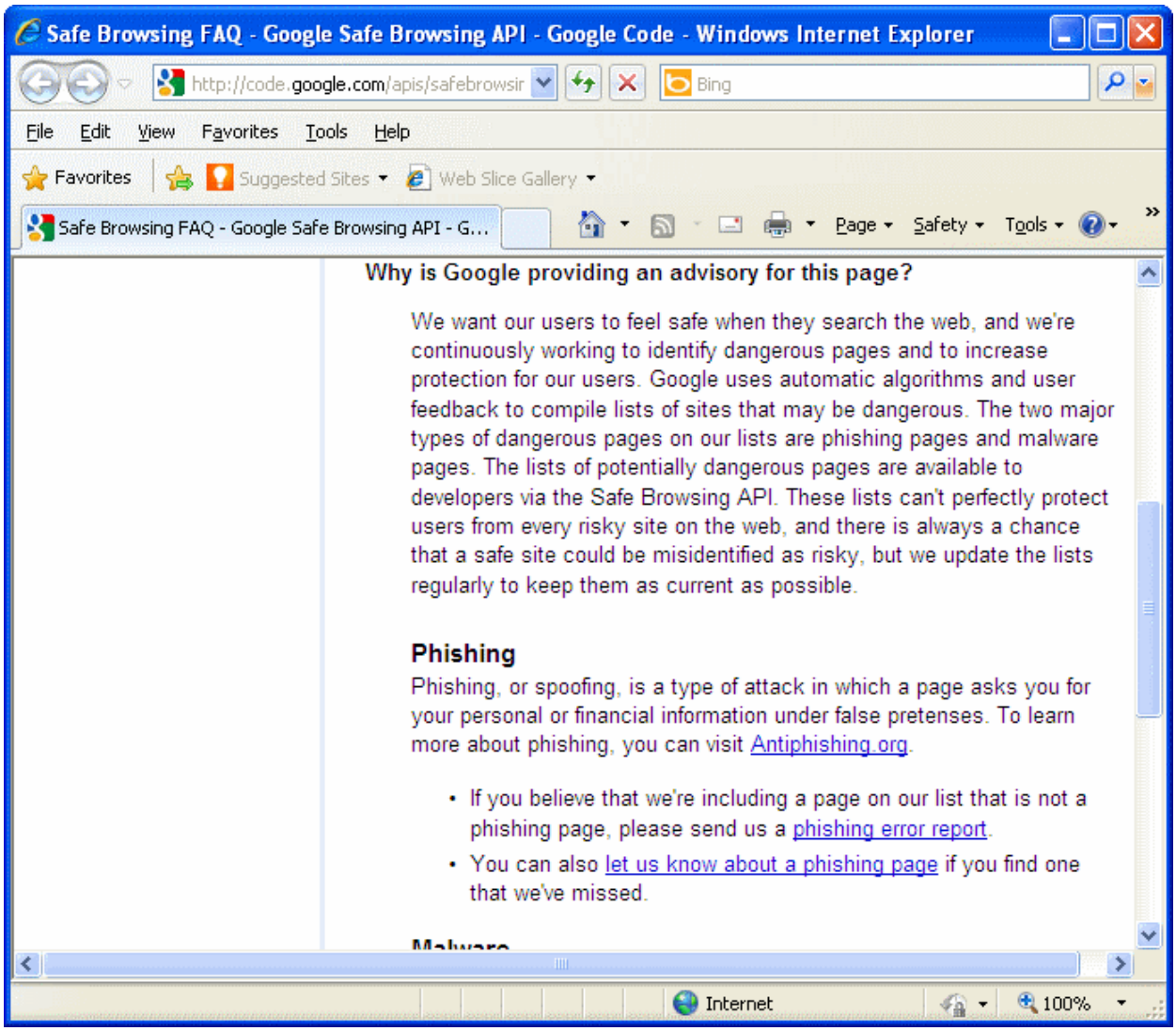
- the IP address of the domain
- the domain registration details
- administrative/technical contact details of the domain
- Whois information for the website



Against each scanned activity in the left side of the report, a 'View Details' link will appear if found to be suspicious, high risk and inconclusive. Clicking on the 'View Details' besides an activity will display the detailed report for it. For example, the 'View Details' link besides 'Blacklist Checking' scan will display the warning that this is a high risk site.



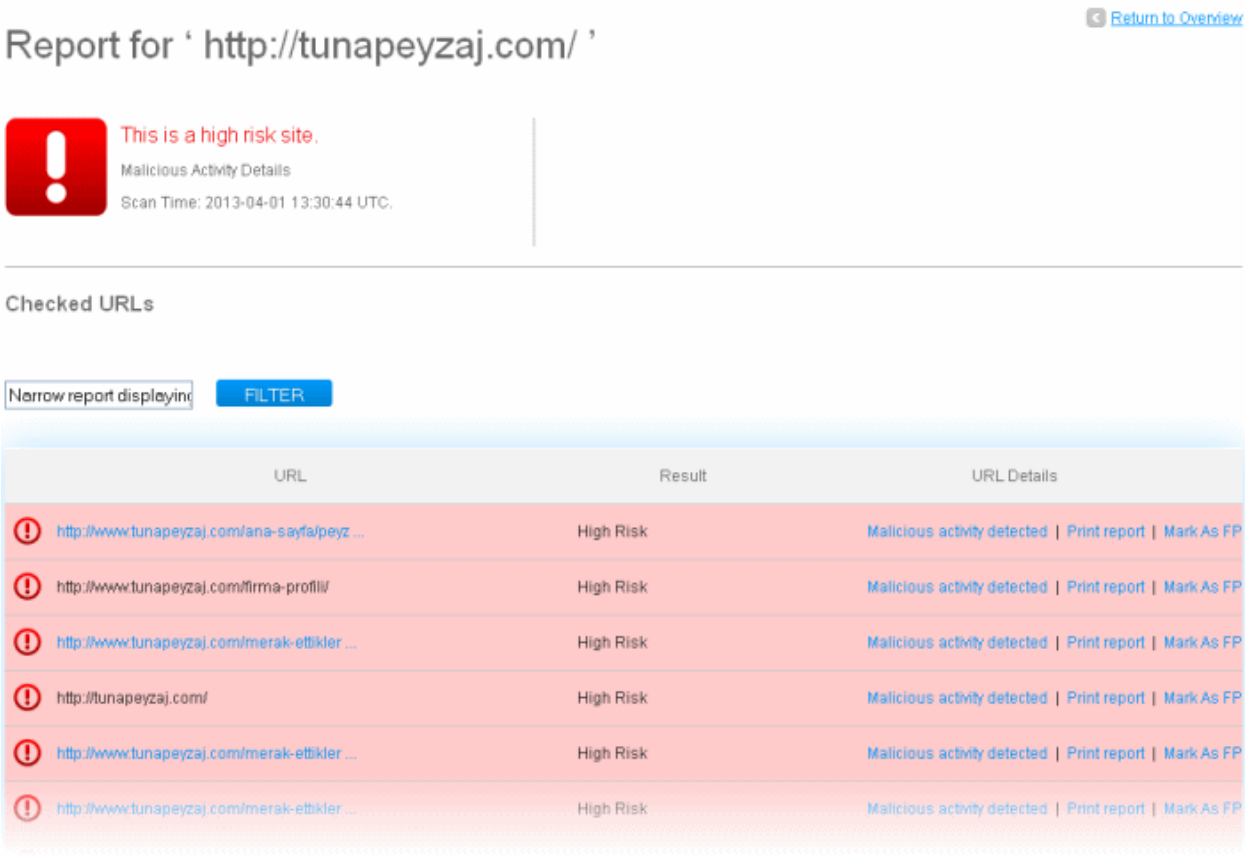
- Clicking 'Advisory provided by Google' link will take you to the Google Safe Browsing FAQ page, that explains why this page is qualified for blacklisting, if found containing Malware.



Click the 'Return to Overview' link to go back to the report summary page.

Clicking on the 'View Details' link of other scanned activities will open the detailed report for the respective activity. Some examples of detailed report are shown below:

Example of detailed report for Malicious Activity



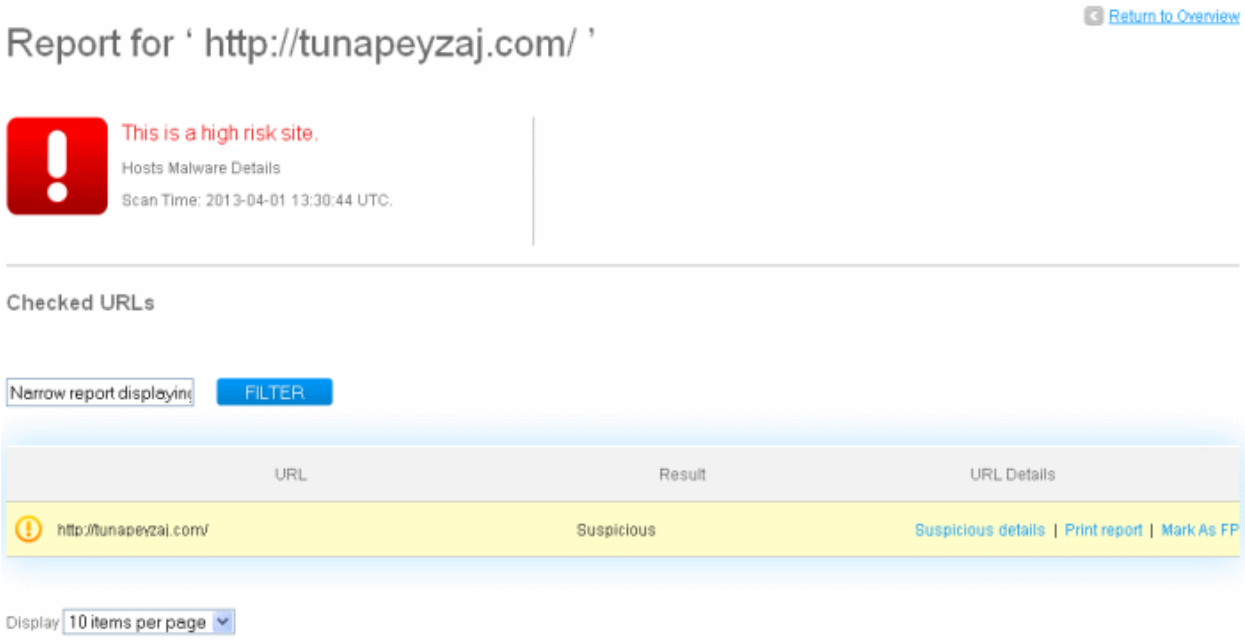
Clicking the 'Malicious activity detected' link will display the report for that particular page.

Click the 'Print report' link to take a print of the report for that page.

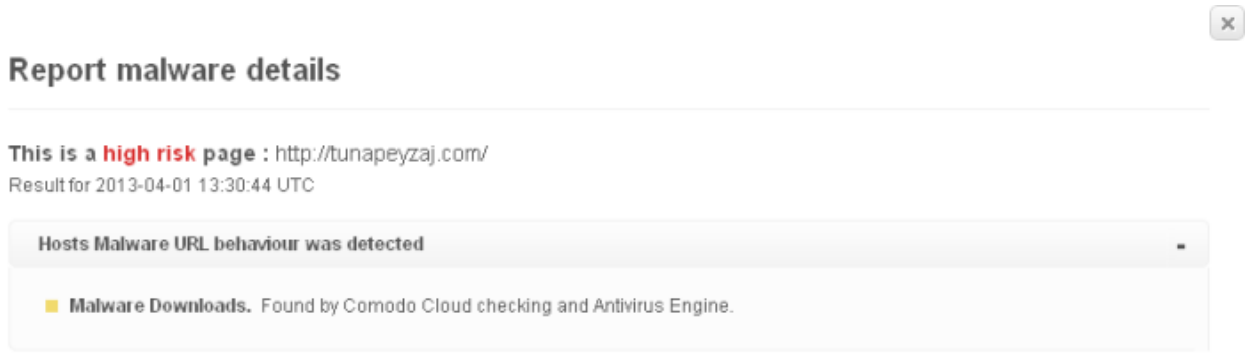
If you are sure that a page listed in the report is safe, you can report it as False Positive by clicking the 'Mark As FP' link beside. See the section '**False Positives**' for more details.

Click the 'Return to Overview' link to return to the summary report screen.

Example of detailed report for Malware Downloads



Clicking the 'Suspicious details' link will display the report for that particular page.



Click the 'Print report' link to take a print of the report for that page.

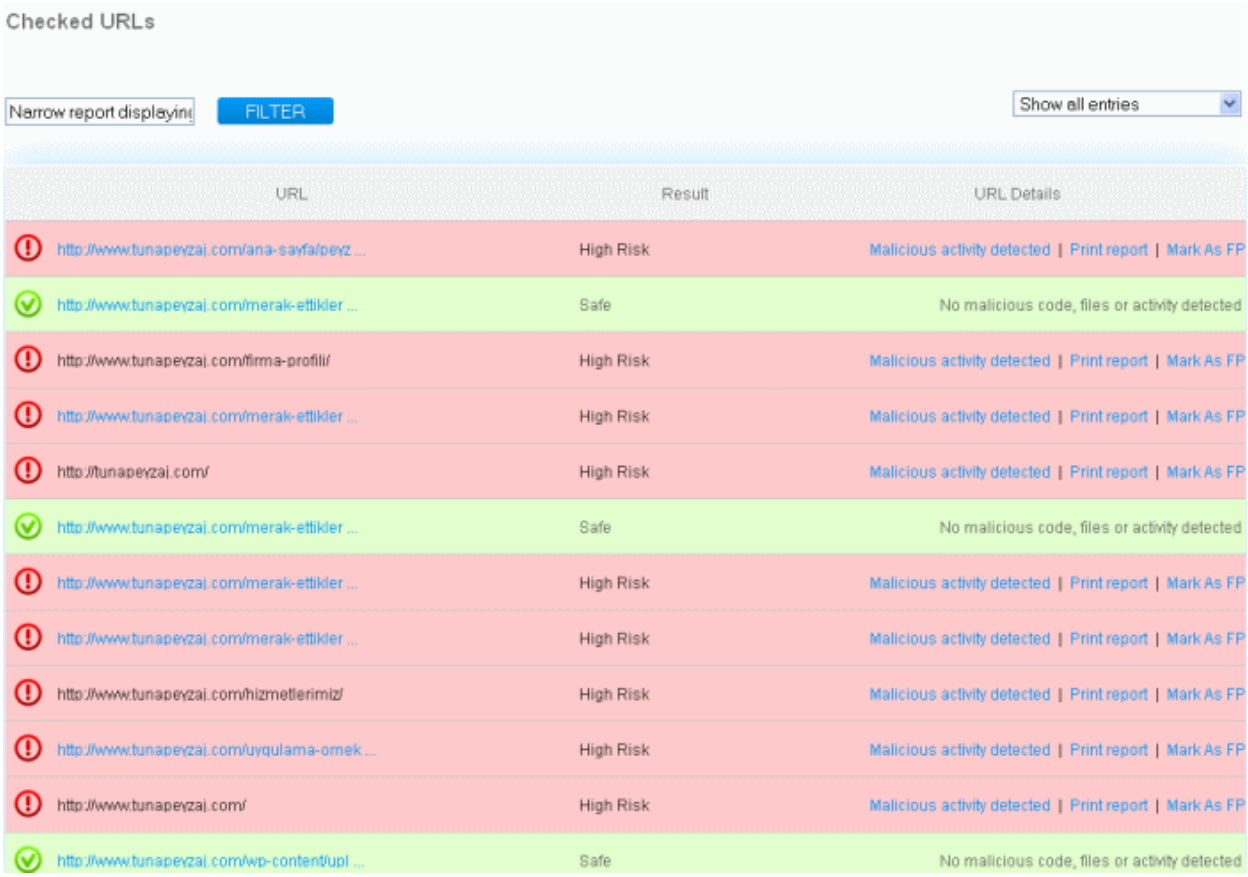
If you are sure that a page listed in the report is safe, you can report it as False Positive by clicking the 'Mark As FP' link beside. See the section '**False Positives**' for more details.

Click the 'Return to Overview' link to return to the summary report screen.

Checked URLs

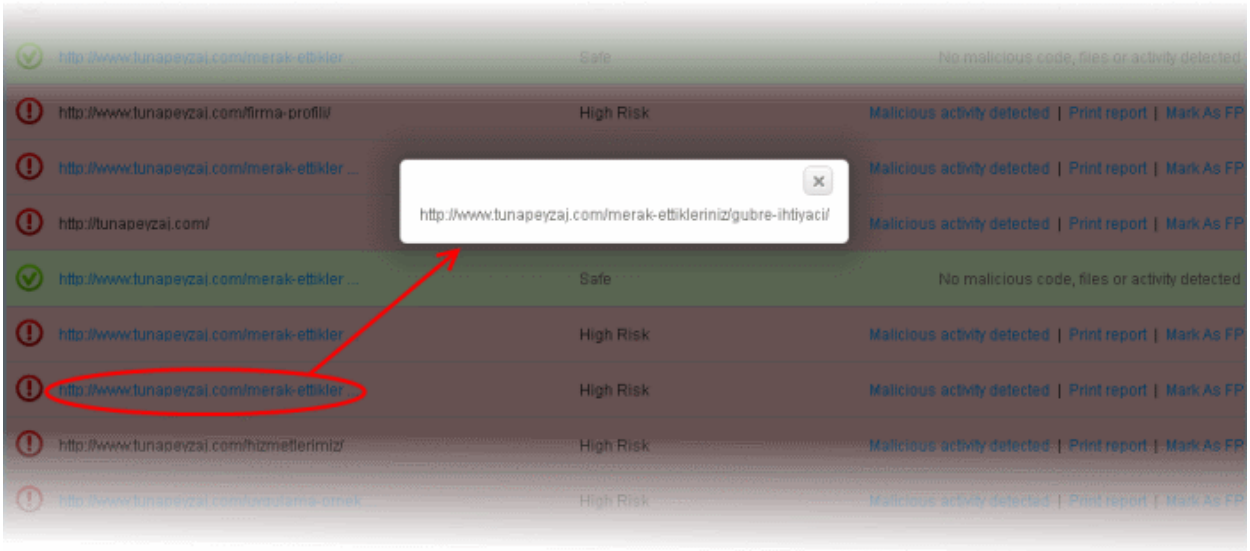
The Checked URLs area provides a list of scanned web pages (urls) of the website.

The Checked URLs area displays the scan result of each and every page scanned; enables you to view the report details of individual pages, print the report for the pages identified as High Risk and Suspicious and report an unsafe page as '**False Positives**' . You can also **filter the reports** to be viewed.



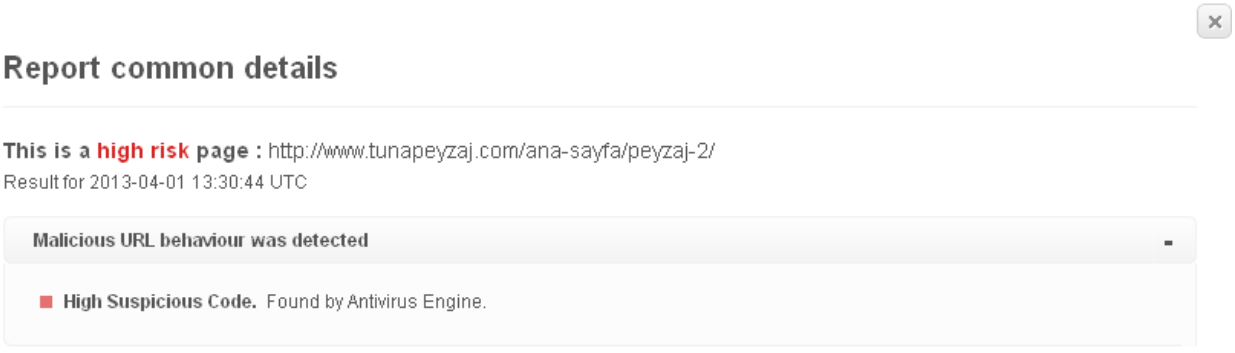
The details provided under each column are described below:

- **URL** - The url of the scanned page. If the full url could not be displayed within the width of the column, clicking on the displayed portion will open a pop-up showing the full url.

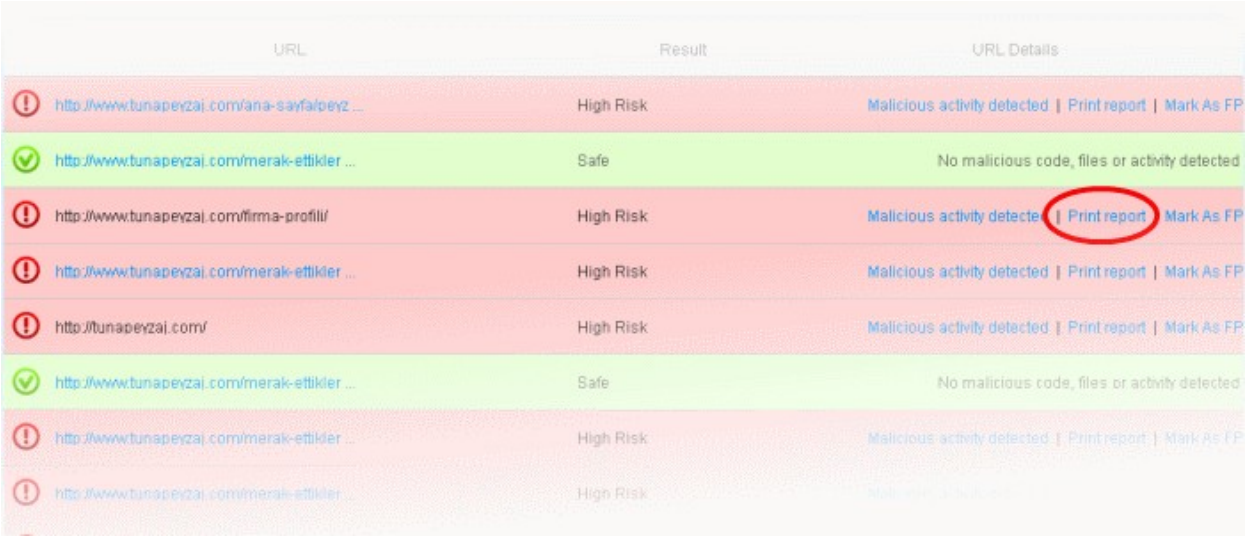


- **Result** - Shows the result of the malware scanning on the page. The result can be one of:
  - Safe - The page contains no malicious code, files or activity
  - Suspicious - The page is identified with suspicious code, file or behavior by the scanning engine
  - High Risk - The page is identified with dangerous code, file or behavior by the scanning engine
  - Inconclusive - The scan terminated without providing conclusive results.

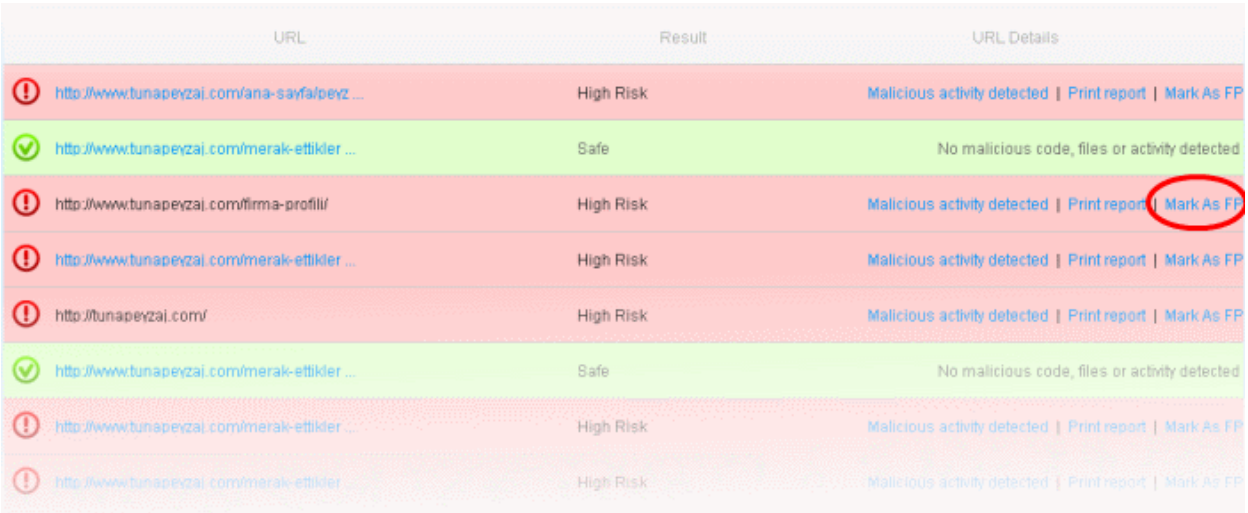
- **URL Detail** – Provides a short description of the result. If the page is found unsafe, clicking on the description will open a pop-up with the report details.



- **URL Report** - Enables you to print the report on the page by clicking the 'Print report 'link.



- **False Positive** - Enables you to mark the page as 'False Positive'. See the section '**False Positives**' for more details.



Removing reports for a particular website

Unwanted and outdated reports can be removed from Web Inspector Reports by clicking the 'Remove' link in the 'Reports of the website' interface.

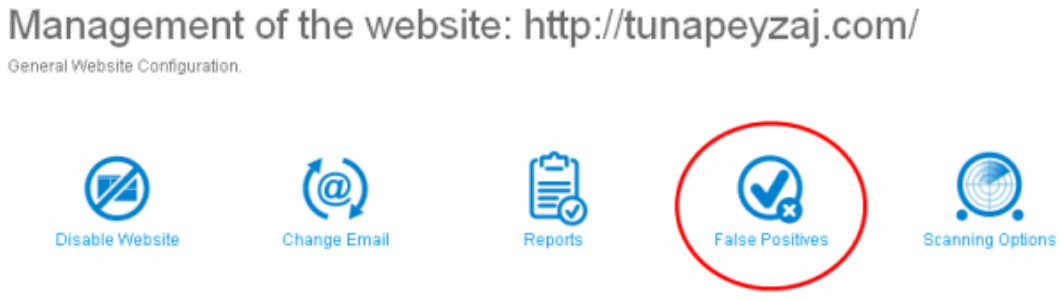
A Confirmation dialog will appear.

- Click 'OK'. The selected report will be removed from Web Inspector.

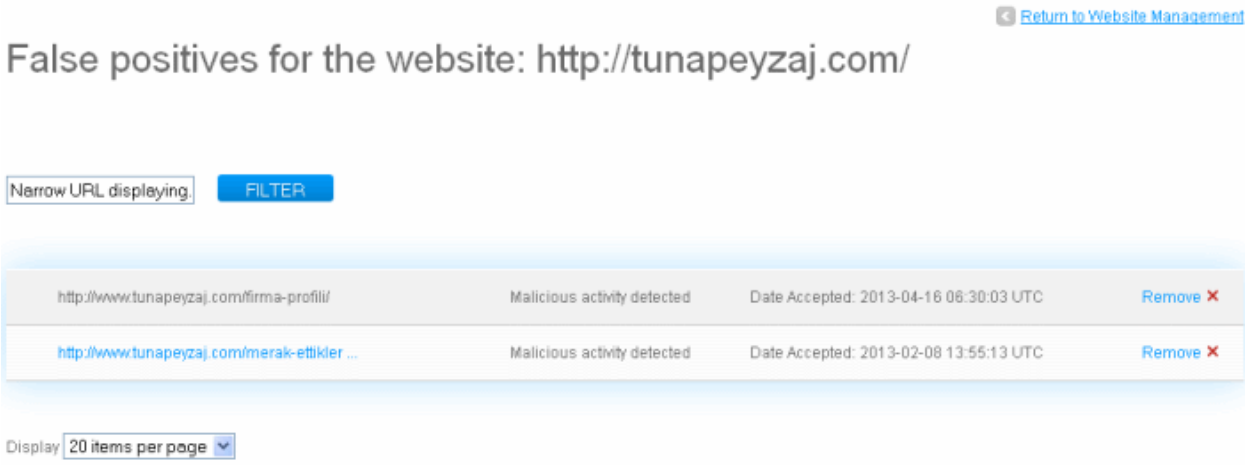
2.3.5.4 False Positives

A False Positive is when you are sure that some of the pages listed by Web Inspector in its report are in fact free from any kind of vulnerabilities or infected by malware. You have the option to mark these pages as False Positive in the Reports tab. Refer to '**View Detailed Reports**' in **Web Inspector Scan Reports** section on how to add pages as false positive. The pages added as False Positive will be listed in this interface.

To view the list of false positive pages reported for a specific website, click the 'Manage' link at the right side in the row and click the 'False Positives' link in the 'General Website Configuration' interface.



The list of web pages added as False Positive will be listed.



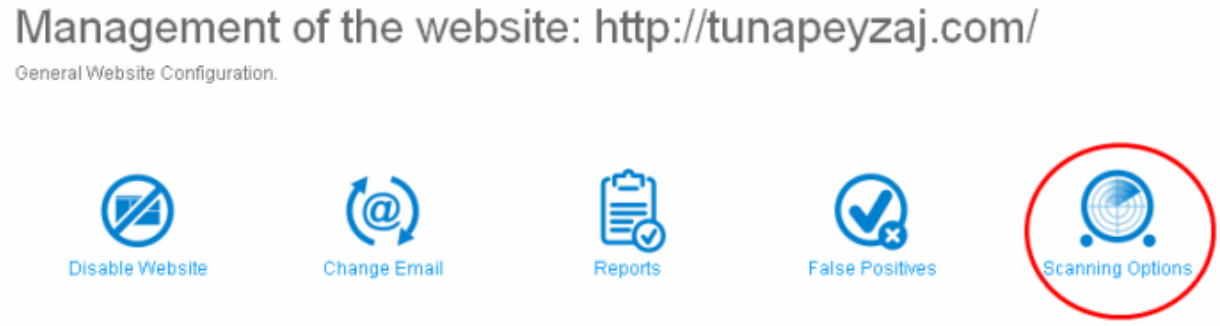
- **Sorting Reports based on Search Keys** - You can filter the entries in the list to show only the results of particular website(s) by sorting the results based on search keys. Enter the search key partially of fully in the text field beside 'Filter' and click the 'Filter' button.
- **Limiting number of entries per page** - You can limit the number of items displayed in the False Positive screen by selecting the option from 'Display' drop-down at bottom right.

This False Positive list will be stored in Comodo servers and will not be reported as malware infected or suspicious page(s) after the next scanning process. Click 'Remove' if you want to delete this page from the list. After removing a page from this list, if Web Inspector detects any malware during the next scan, it will be reported again as infected page in reports.

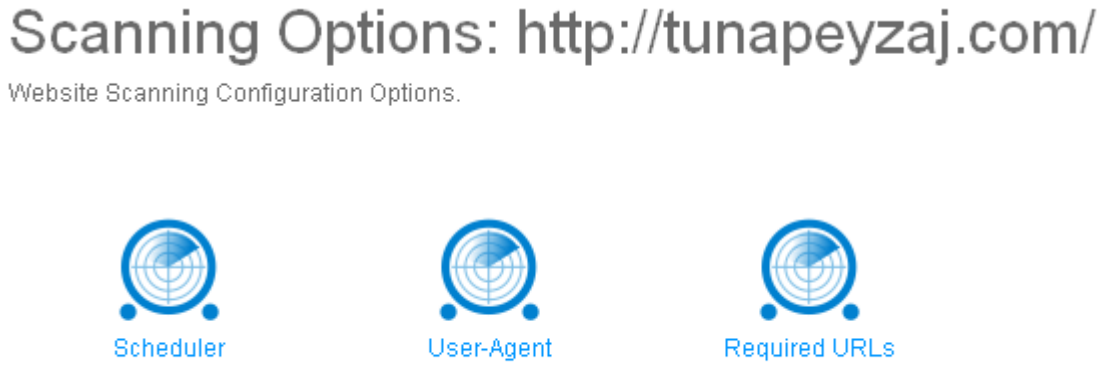
2.3.5.5 Scanning Options

Web Inspector allows you schedule your daily scans, change the user-agent name that will be used to scan your website and specify a particular page or pages that you want

To configure scanning settings for a specific website, click the 'Manage' link at the right side in the row and click the 'Scanning Options' link in the 'General Website Configuration' interface.



The 'Website Scanning Configuration Options' screen will be displayed.



The scanning options available are:

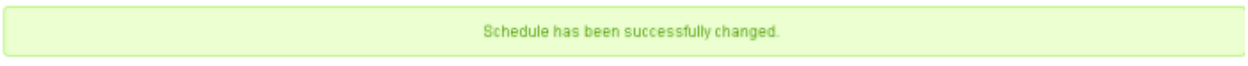
- **Scheduling your daily WI scans**
- **Changing the name of user-agent**
- **Adding specific pages to be scanned manually**

Scheduling your Daily WI Scans

Web Inspector allows you set the time of the scans for your websites. To set the daily scan time, click the 'Scheduler' link in the 'Website Scanning Configuration Options' interface.

Select the hour and minute at which the scan should commence in the 'Hour' and 'Min' drop-down boxes and click the 'Update' button.

The 'Schedule has been successfully changed' message will be displayed.



The daily WI scan will commence at the newly scheduled time.

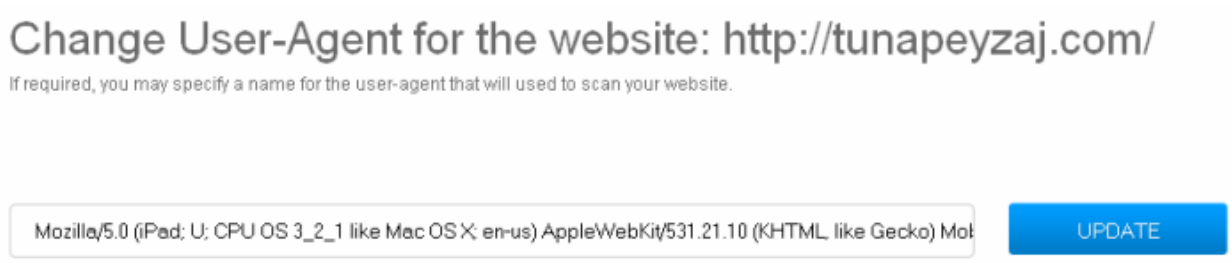
Click the 'Return to Scanning Options' link to go back to the 'Website Scanning Configuration Options' screen.

Changing the User-Agent's Name

This setting lets you determine the browser type that the Web Inspector agent uses to identify itself to your website. When making a request to download pages in order to scan them, Web Inspector identifies itself in much the same way that a regular browser identifies itself. In some cases, websites present different content based on the type of browser/user-agent that is making the request. By default, the Web Inspector agent identifies itself as 'Mozilla/4.0 (compatible; MSIE 8.0; Windows NT 6.0)'. This setting covers the vast majority of browsers that your website visitors will use to visit your site. Therefore, Web Inspector is requesting, receiving and analyzing the precise content that your viewers see.

For a full list of user-agent strings, please visit **http://user-agent-string.info/list-of-ua**

To change the name of the user-agent,click the 'User-Agent' link in the 'Website Scanning Configuration Options' interface.



Enter the new name of the user-agent in the text box and click the 'UPDATE' button.

The 'User-Agent has been successfully changed' message will be displayed.

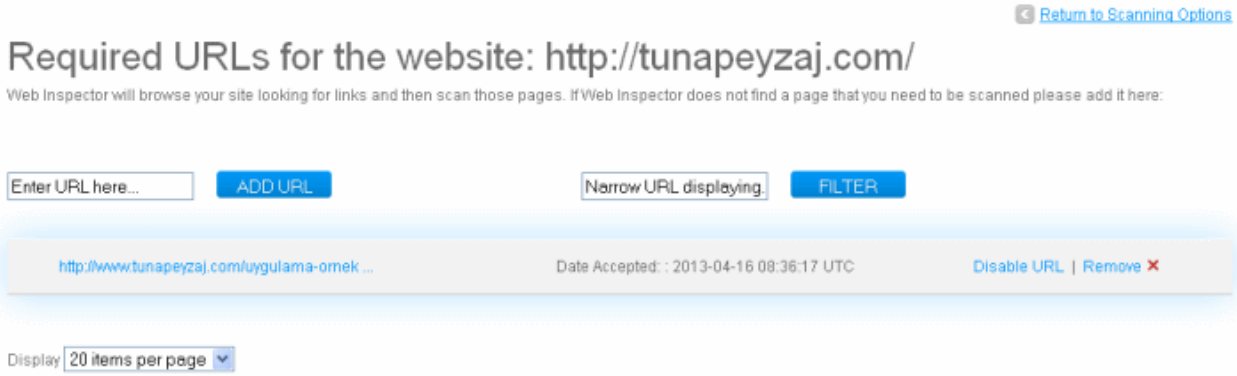
Click the 'Return to Scanning Options' link to go back to the 'Website Scanning Configuration Options' screen.

Adding Pages Manually for WI Scan

Web Inspector will browse your website and all the linked pages. If Web Inspector does not find a page that you need to be scanned, you can add the URLs of these pages manually.

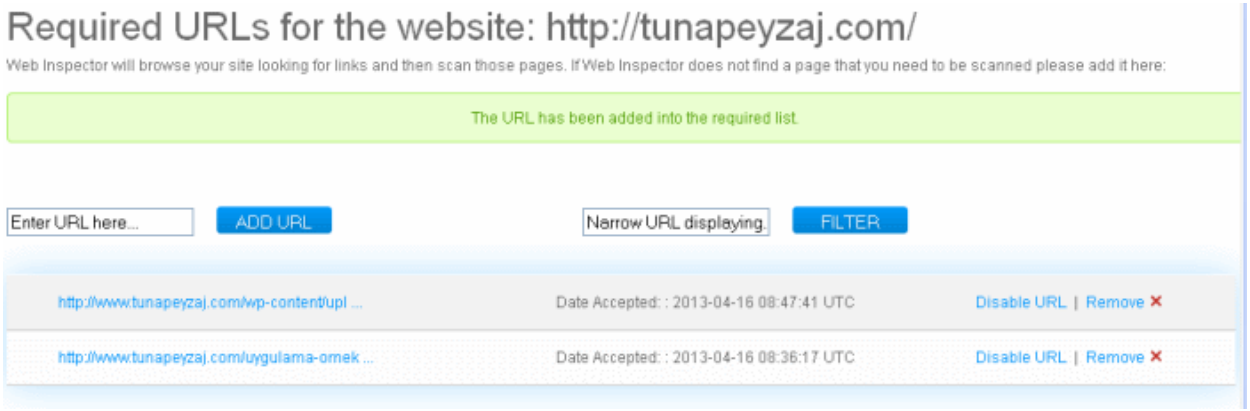
To add URLs of pages manually for WI scanning, click the 'Required URLs' link in the 'Website Scanning Configuration Options' interface.

The list of web pages already added will be listed.

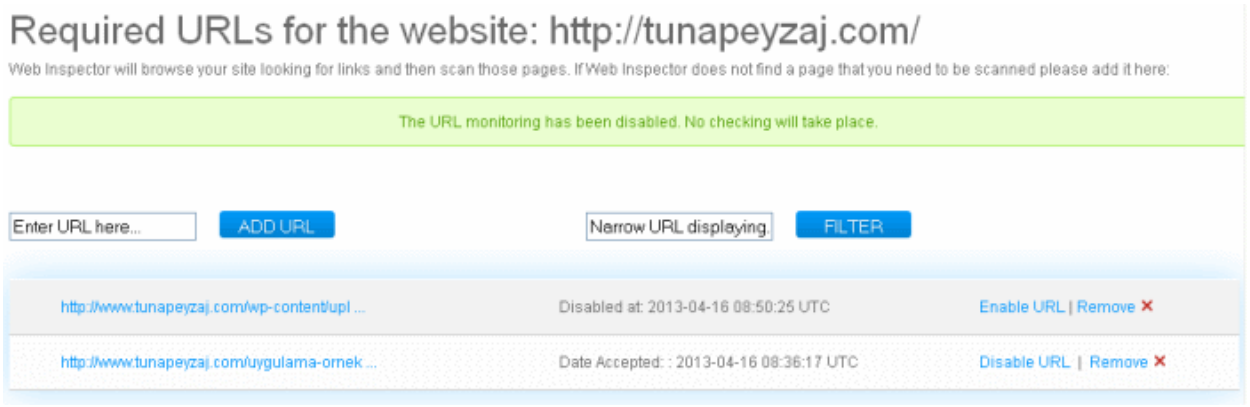


- **Sorting Reports based on Search Keys** - You can filter the entries in the list to show only the results of particular webpage(s) by sorting the results based on search keys. Enter the search key partially of fully in the text field beside 'Filter' and click the 'Filter' button.
- **Limiting number of entries per page** - You can limit the number of items displayed in the screen by selecting the option from 'Display' drop-down.

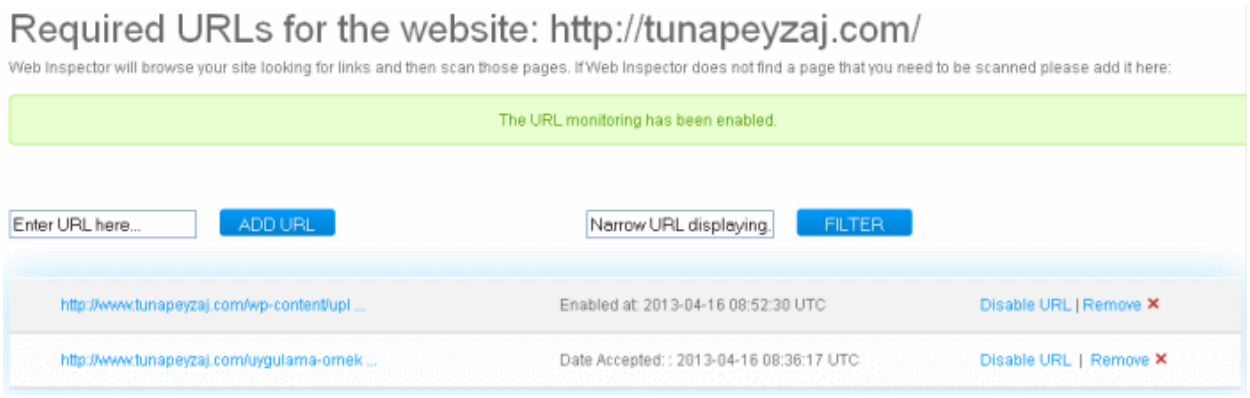
To add a web page manually, enter the full URLs of the webpage and click the 'Add URL' button. Web Inspector will add the webpage and display in the list.



You can disable a webpage from being scanned by Web Inspector. Click the 'Disable URL' beside the page entry that you do not want to be scanned and click 'OK' in the confirmation dialog. A message will be displayed that the monitoring has been stopped for the selected page.



To enable it again, click the 'Enable URL' link and click' OK' in the confirmation dialog. Web Inspector will now start monitoring the enabled page also.



You can remove a page from this list by clicking the 'Remove' link beside it.

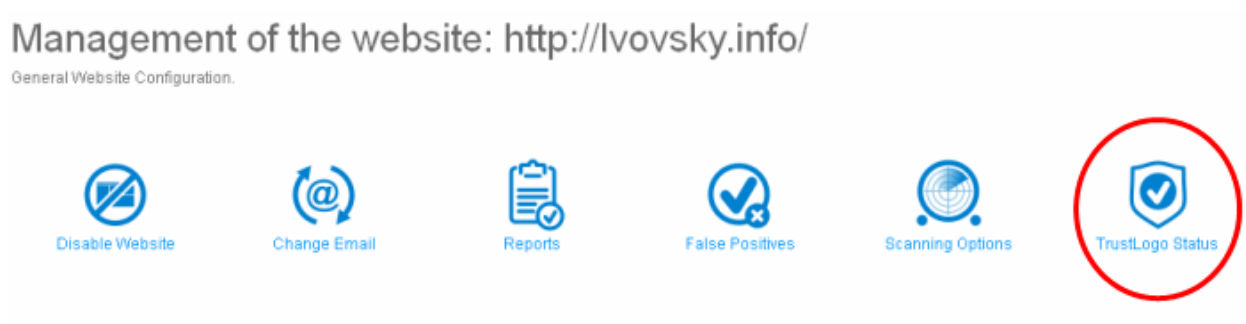
2.3.5.6 Adding Trust Logo to your Website

The Web Inspector Trust Seal is a symbol that conveys the message to your website visitors that the site is safe, secure, trusted and verified thus increasing the conversion rates of visitors to potential buyers. You can add the WI Trust Logo in your website from the 'Websites' interface or in the 'List of Websites interface.

To add WI TrustLogo in your website

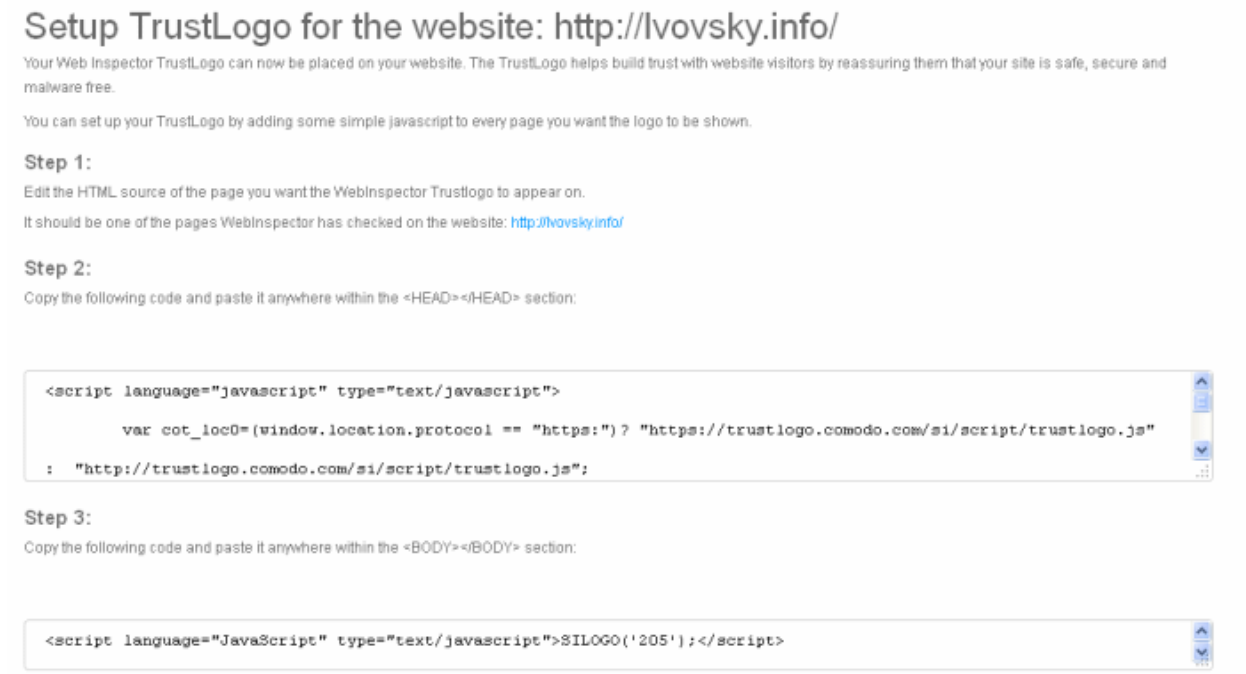
- Click the 'Manage' link at the right side in the row of the website that you want to add the TrustLogo.

The General Website Configuration of the selected website will be displayed.



- Click the 'TrustLogo Status' link.

Note: The availability of 'TrustLogo' link in the interface depends on the license that you have purchased. See the section **Subscribe WI services for more websites** in **Web Inspector Area** on how to purchase WI services with TrustLogo.



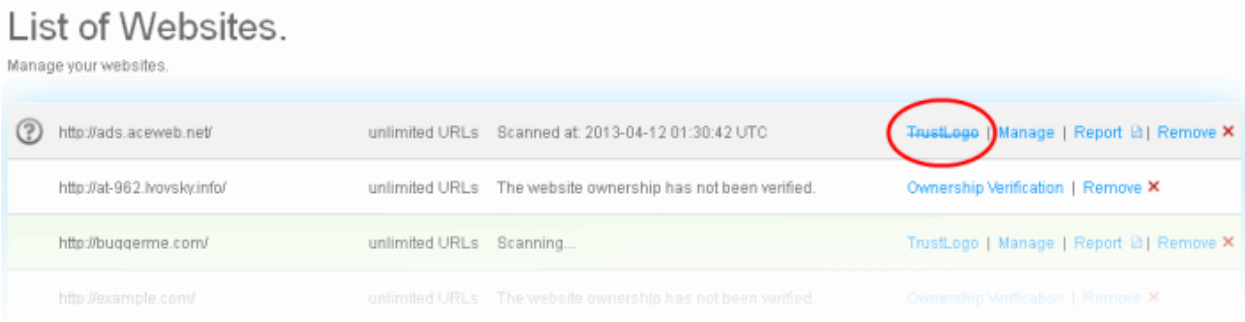
The setup TrustLogo screen will be displayed. This screen provides instructions on how to add javascript in the HTML source page that you want the logo to be displayed.

This is a easy three-step process.

- **Step 1** - Edit the HTML source page of the web page that you want the WI Trust Logo to appear. Please note that this page should belong to the website that WI has already checked.
- **Step 2** - Copy the code in the text box below 'STEP 2' and paste it in a new line anywhere within the <head> </head> tag in the page.
- **Step 3** - Copy the code in the text box below 'STEP 3' and paste in a new line anywhere within the <body> </body> tag in the page.

That's it. Now, the WI TrustLogo will appear in the page that you have added the codes.

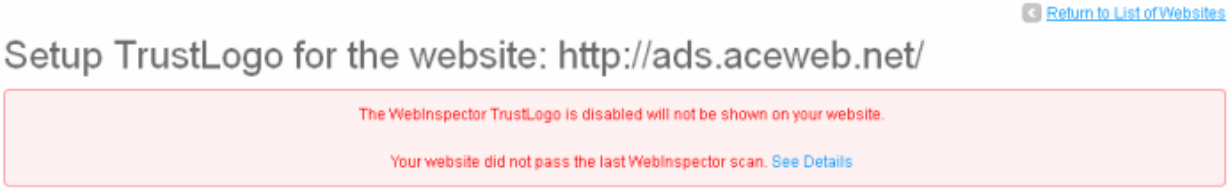
After a malware scan, if WI finds that a subscribed website is infected, the WI TrustLogo will be removed from the site and the TrustLogo link in the 'Websites' interface will be struck off.



- Click on the 'TrustLogo' link to find the details.

Or

- Click the 'TrustLogo Status' link in the 'General Website Configuration' screen.



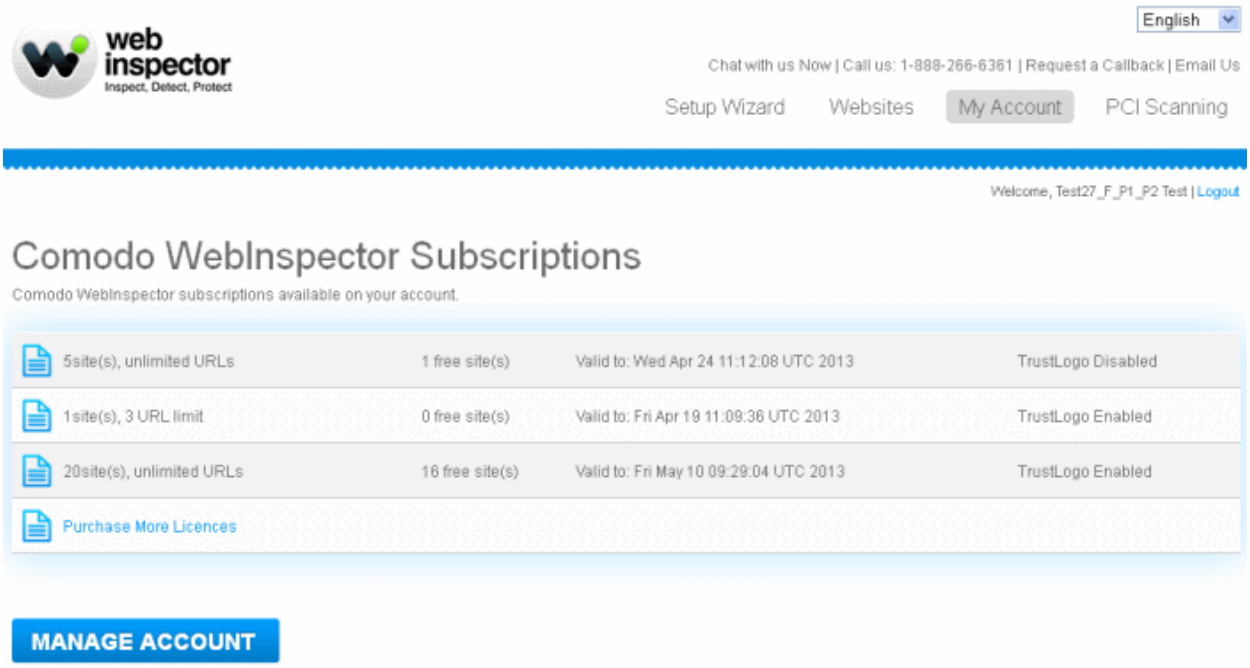
- Click the 'See details' link to view the detailed report of the infection. Refer to the section **View Detailed Reports of a website** in **Web Inspector Scan Reports** for more details.

After remedial action has been taken and during the next WI scan if the website is found to be safe, the WI TrustLogo will be enabled again.

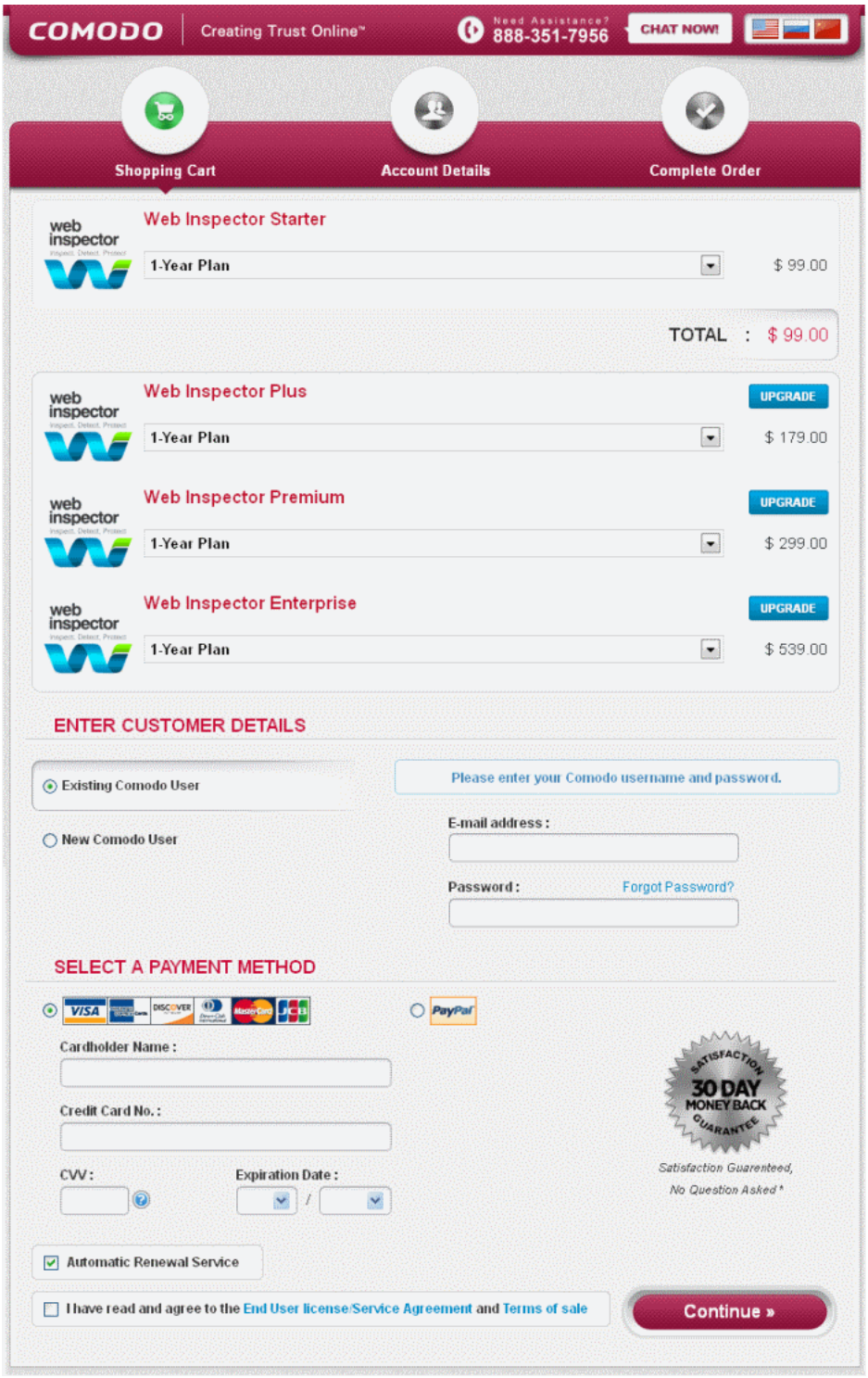
2.4 Managing Your Account

The 'My Account' tab in Web Inspector enables you to view your account details, change your login password, add more websites, renew your subscription and create a new account.

To manage your account, click the 'My Account' tab in the WI interface. The details of your subscriptions will be displayed.



You can purchase more subscriptions by clicking the 'Purchase More Licenses' link. It will take you to the purchase page:

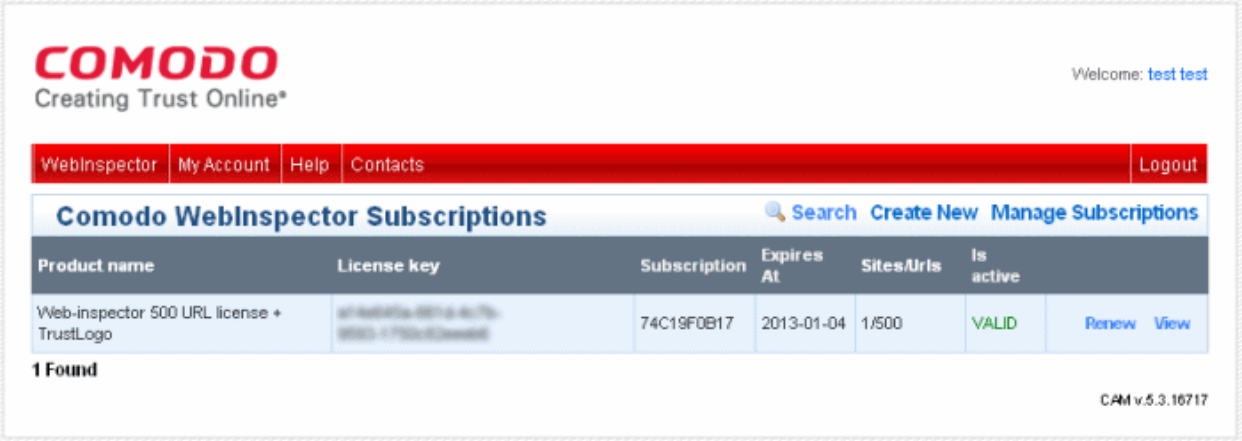


- Select the plan that you would like to purchase.
- Select 'Existing Comodo User' in the 'Enter Customer Details' area and provide your email address and password for the existing Comodo account.
- Select a payment method and provide the details.
- Select 'Automatic Renewal Service' if you want the subscriptions to be renewed automatically on expiry.
- Agree to the End User License Service Agreement and Terms of sale after reading them fully.
- Click 'Continue' and complete the purchase procedure.

Your new subscription will updated and displayed in the 'My Account' screen.

To manage your WI account, click the 'Manage Account' button.

You will be taken to your Comodo Accounts Manager (CAM) page at **https://accounts.comodo.com/siteinspector/management**.



The Accounts page contains four tabs:

- **Web Inspector**
- **My Account**
- **Help**
- **Contacts**

2.4.1 Web Inspector Area

If you have subscribed for only Web Inspector service, the details of your service will be displayed directly in this page. If you have subscribed for more accounts, such as Comodo Online Storage, Comodo Internet Security etc., you have to select the respective product from the drop-down in the first tab named as 'Services'.

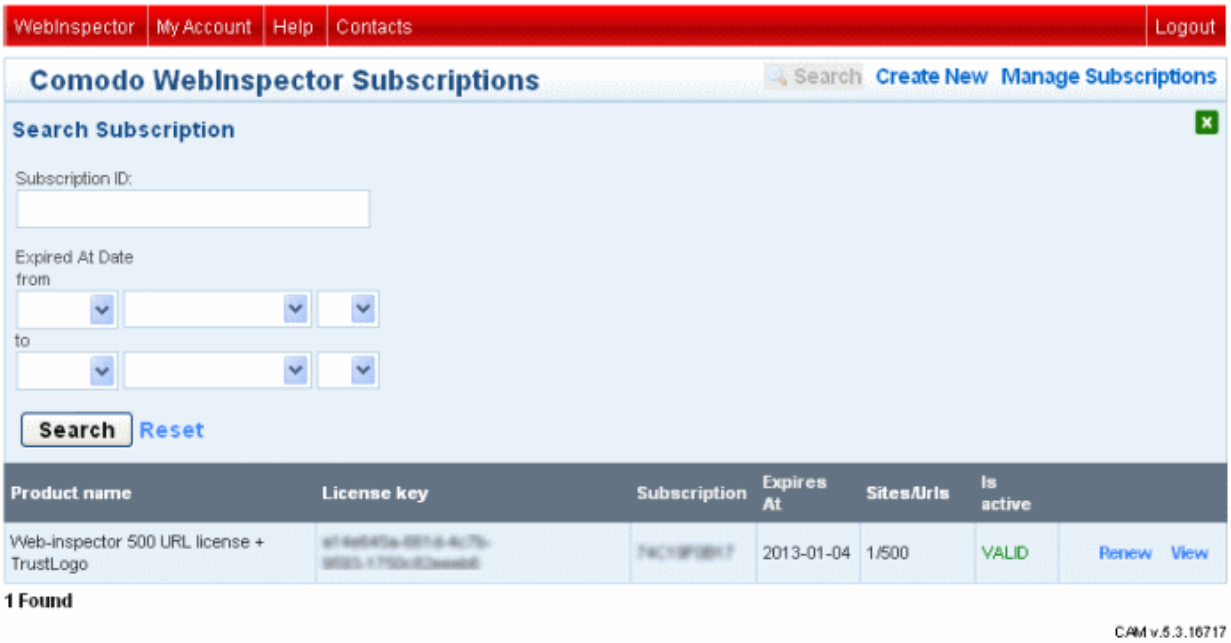
The page allows you to:

- **Search for your subscription**
- **Subscribe WI services for more websites**
- **Renew your subscription** and
- **View your subscription details**

To search for your subscription

- Click or select 'Web Inspector' from the first tab in your accounts screen.
- Click the 'Search' link at the top right side of the screen.

The 'Search Subscription' page will be displayed.



- Enter the full or part of the subscription ID in the text field

and / or

- Select the period of the subscription in the year, month and date drop-downs and click the 'Search' button.

The search process will start and details of all your subscription will be displayed at the bottom of the screen.

To subscribe WI services for more websites

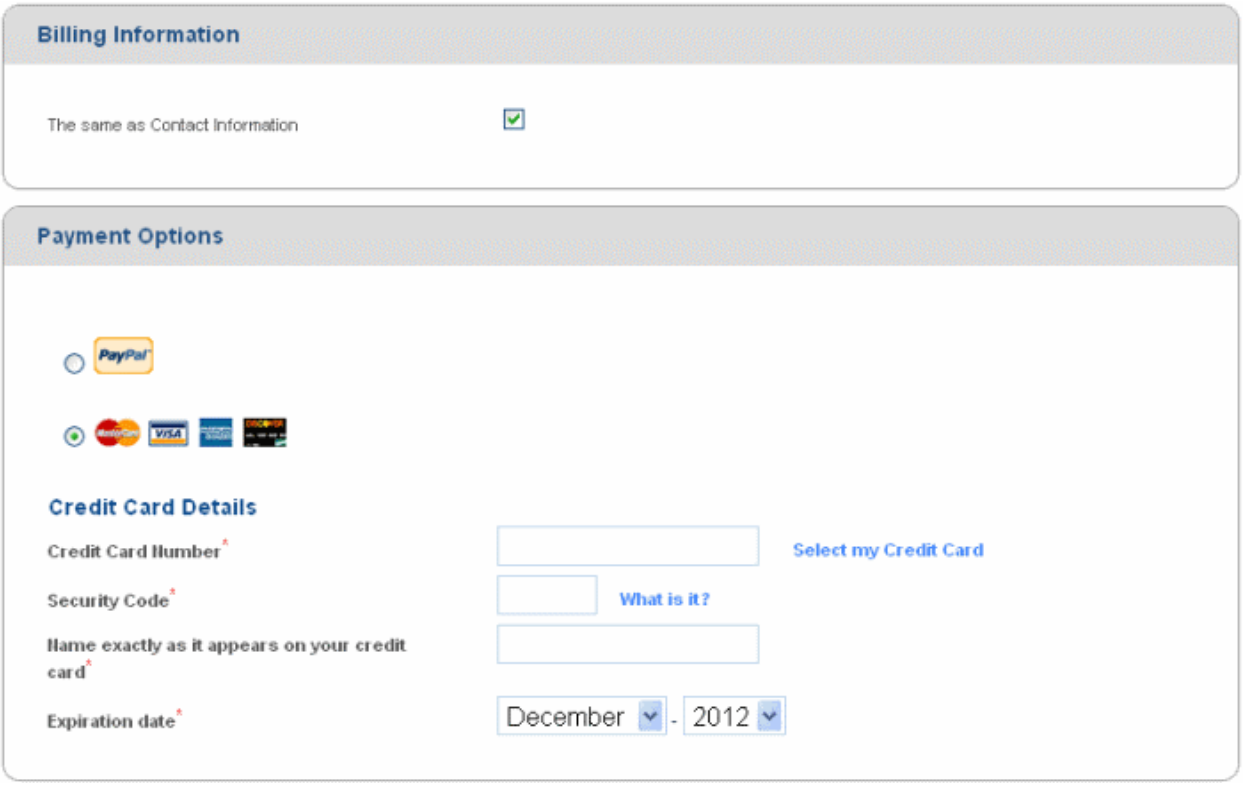
- Click the 'Create New' link at top right side of the screen.

The 'Comodo Sign-Up Page' will be displayed.

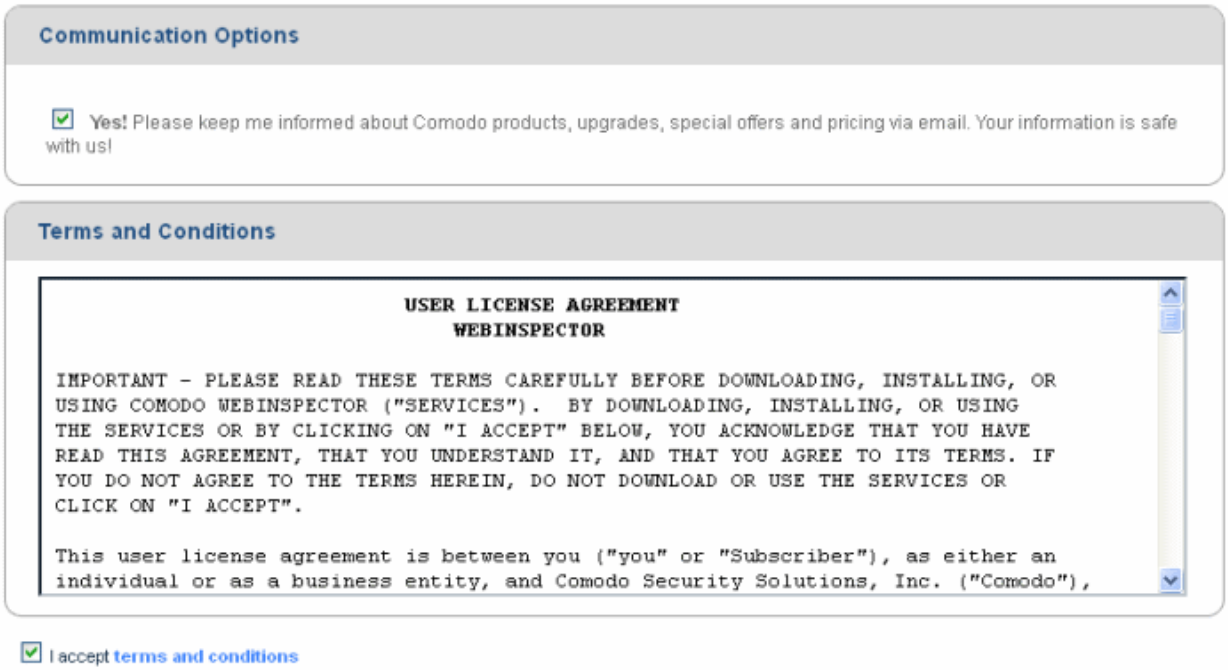
- Select the service that you want to enroll in the 'Pricing Terms' section.
- Enter your contact details in the 'Contact Information' section.

Note: Fields marked with * are mandatory.

- If your Billing address is same as the contact information, leave the checkbox 'The same as Contact Information' under Billing Information selected. Else, uncheck the option and enter your billing address.
- Select your payment mode in the 'Payment Options' section and enter the required details in the respective fields.



- Select the 'Yes' checkbox in the 'Communication Options' section for updates about Comodo products.
- Read the 'User License Agreement' and accept to it by selecting 'I accept the Terms and Conditions' checkbox.



- Click 'SIGN UP'

Your order will be processed and confirmation email will be sent from Comodo.

To renew your subscription for WI services

- Click the 'Renew' link at the bottom right side of the screen.

The 'Comodo Sign-Up Page' will be displayed. Follow the same procedure as explained in '**Subscribing WI services for more websites**' section.

To view your Web Inspector subscription details

- Click the 'View' link at the bottom right side of the screen.

Your Comodo Web Inspector Subscriptions details page will be displayed.

The license key and subscription details have been intentionally blurred and will be clear in your accounts page.

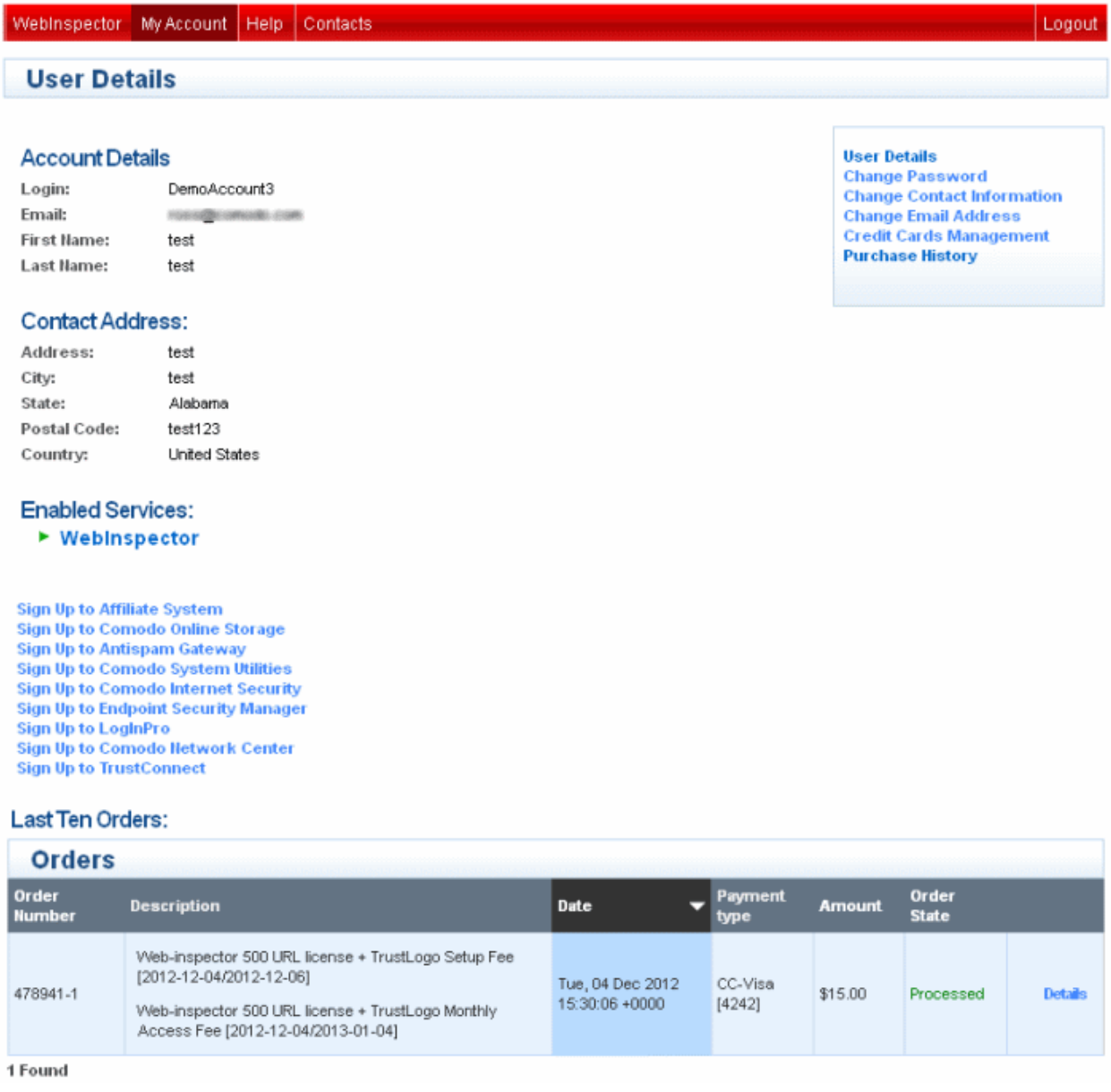
- Click 'Close' or the button to return to the subscriptions page.

To return to Web Inspector website from your accounts page

- Click 'Manage Subscriptions' link to return to the Web Inspector services website.

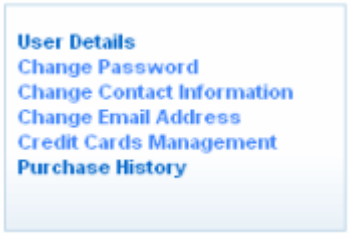
2.4.2 My Account

The 'My Account' tab displays the full details of your account with Comodo Accounts Manager.



This area allows you to change your account settings and information and also to sign-up for other Comodo Products and Services. The right hand side pane contains the shortcuts for the following:

- Viewing your account details
- Changing your account password
- Changing your contact details
- Changing your email address
- Managing your credit card details.
- Viewing your purchase history



Changing Your Comodo Account Password

The 'Change Password' option in the right hand side pane allows you to change the password to access your Comodo Web Inspector services account and the Comodo Accounts Manager (CAM).

To change your password

- Click 'Change Password' from the right hand side pane in the 'My Account' interface.

- Enter your existing password on Old Password text box.
- Enter your new password in the New Password text box and re-enter for confirmation in the Reenter New Password text box.
- Click 'Submit'.

Your access password is now changed. You need to enter your new password to access your SI services account from next login onwards.

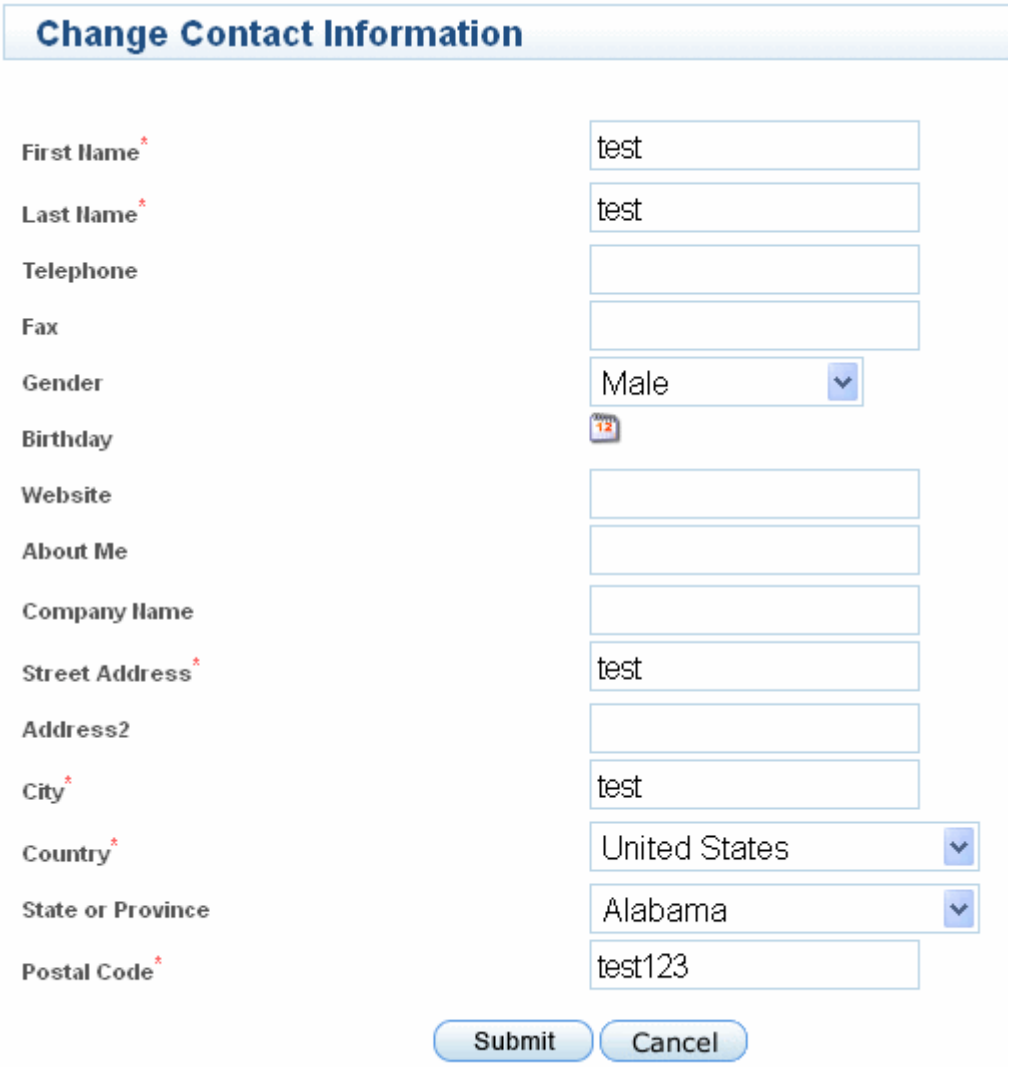
Changing Contact Information

The 'Change Contact Information' option in the right hand side pane enables you to change your contact details from those provided during your account sign-up.

To change your contact details

- Click 'Change Contact Information' from the right hand side pane in the 'My Account' interface.

The 'Change Contact Information' form will appear, pre-populated with the details entered while signing-up the account.



- Modify the details as required.

Note: Fields marked with * are mandatory.

- Click 'Submit'.

Your contact information attached with the account are now changed.

Changing Your Email Address

The 'Change Email Address' option in the right hand side pane enables you to change your email address that is associated with your account.

To change your contact email address.

- Click 'Change Email Address' from the right hand side pane in the 'My Account' interface.

The Change Email Address form appears, pre-populated with the email entered while signing-up the account.

- Enter the new email address in the New Email Address text box and re-enter the same in the Reenter New Email Address text box for confirmation.
- Click 'Submit'.

The email address attached to your account is now changed. You will receive email notifications related to your Comodo Web Inspector account only in your new email address. But your login email address remains the same, as signed-up with.

Managing Your Credit Cards Information

The 'Credit Cards Management' option in the right hand side pane enables you to change the details of the credit card(s) associated with your account. The details of the credit card you used earlier will be displayed.

To add a new card, click 'Add Credit Card' and fill-in the form with the details of the new card. This will help in pre-populating your credit card details when your are renewing your subscription, purchasing additional online storage space or subscribing for other Comodo Products or Services.

Subscribing for Other Comodo Products and Services

The 'User Details' page under 'My Account' tab displays the currently enabled services for your account and a list of other products and services available from Comodo at its bottom.

- To subscribe for other Comodo products or Services, simply click the corresponding link and follow the enrollment procedure.

Viewing your Purchase History

In this page you can view the details of Comodo products that you have purchased in the past.

To view your purchase history

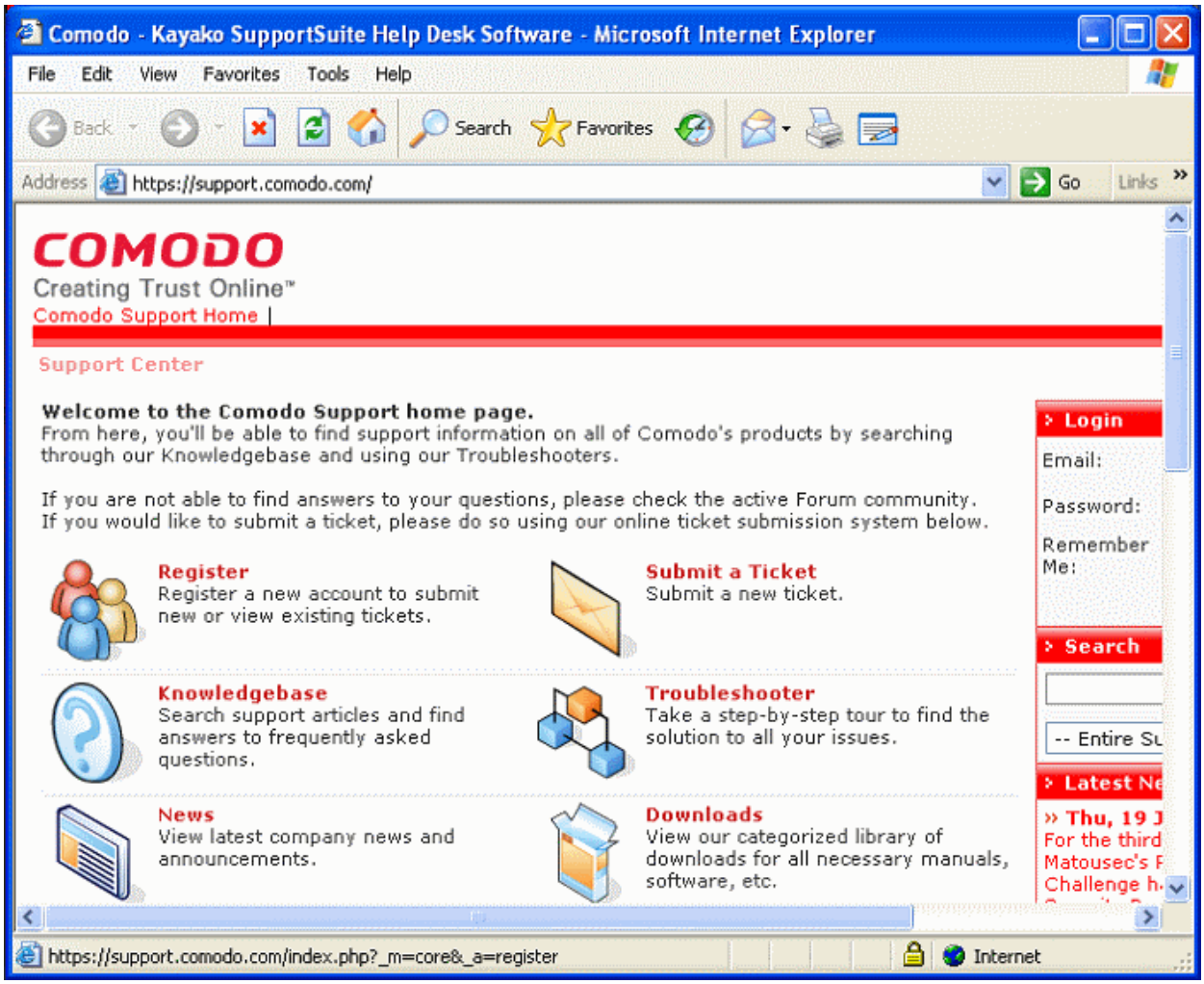
- Click 'Purchase' from the right hand side pane in the 'My Account' interface.

The page displays the details of products that you have purchased and also allows you to view the orders and change future payment method.

- Click the 'Orders' link to view all your product orders and their details.
- Click the 'Change Payment Method' to change credit card details for future payments that will be required while purchasing Comodo products or renewing existing subscriptions.

2.4.3 Help

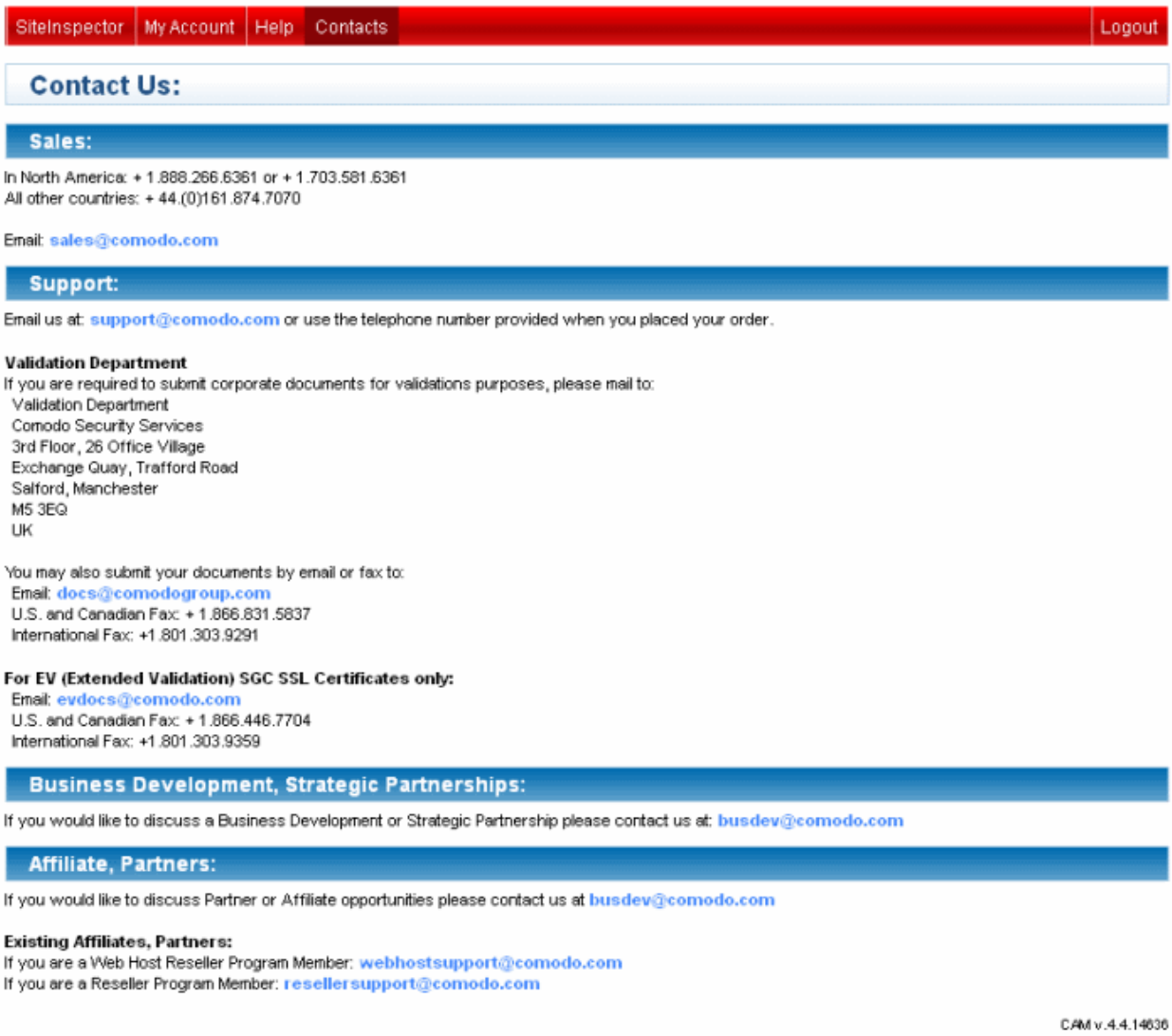
Clicking the Help tab takes you to Comodo's searchable knowledge base and troubleshooter at **https://support.comodo.com/**



If you do not find a solution in our Knowledge base or Troubleshooter, you can submit a support ticket after registering an account. Registration is free.

2.4.4 Contacts

Clicking the 'Contacts' tab takes you to the 'Contact Us' page.



The 'Contact Us' page contains telephone numbers and email addresses for contacting Comodo for purchasing Comodo Products and Services and to get Product Support.

2.5 PCI Scanning

PCI Scanning services in Web Inspector is a fully configurable vulnerability assessment and reporting service for networks and web servers. Our remote audits run over 28,000 individual security tests on your organization's servers then provide expert advice to help you fix any vulnerabilities.

Because Comodo is PCI Approved Scanning Vendor (ASV), our 'Web Inspector Scan Control Center' range provides everything a merchant needs to become compliant with the PCI vulnerability scanning guidelines.

The PCI Scan Compliancy Service is an on-demand, vulnerability assessment scanning solution to enable merchants and service providers to achieve PCI scan compliance.

After each scan, users receive a comprehensive vulnerability report detailing any security issues alongside remediation advice and advisories to help fix them.

Following a successful scan (no vulnerabilities with a CVSS base score greater than 4.0), merchants are provided with an official PCI compliance report that can be sent to an acquiring bank.

WI PCI also offers a web-based Internal Scanning feature to run vulnerability scans on the individual devices connected to your network and protected by a firewall or other network security devices.

2.5.1 Starting up with Web Inspector PCI Scanning Service

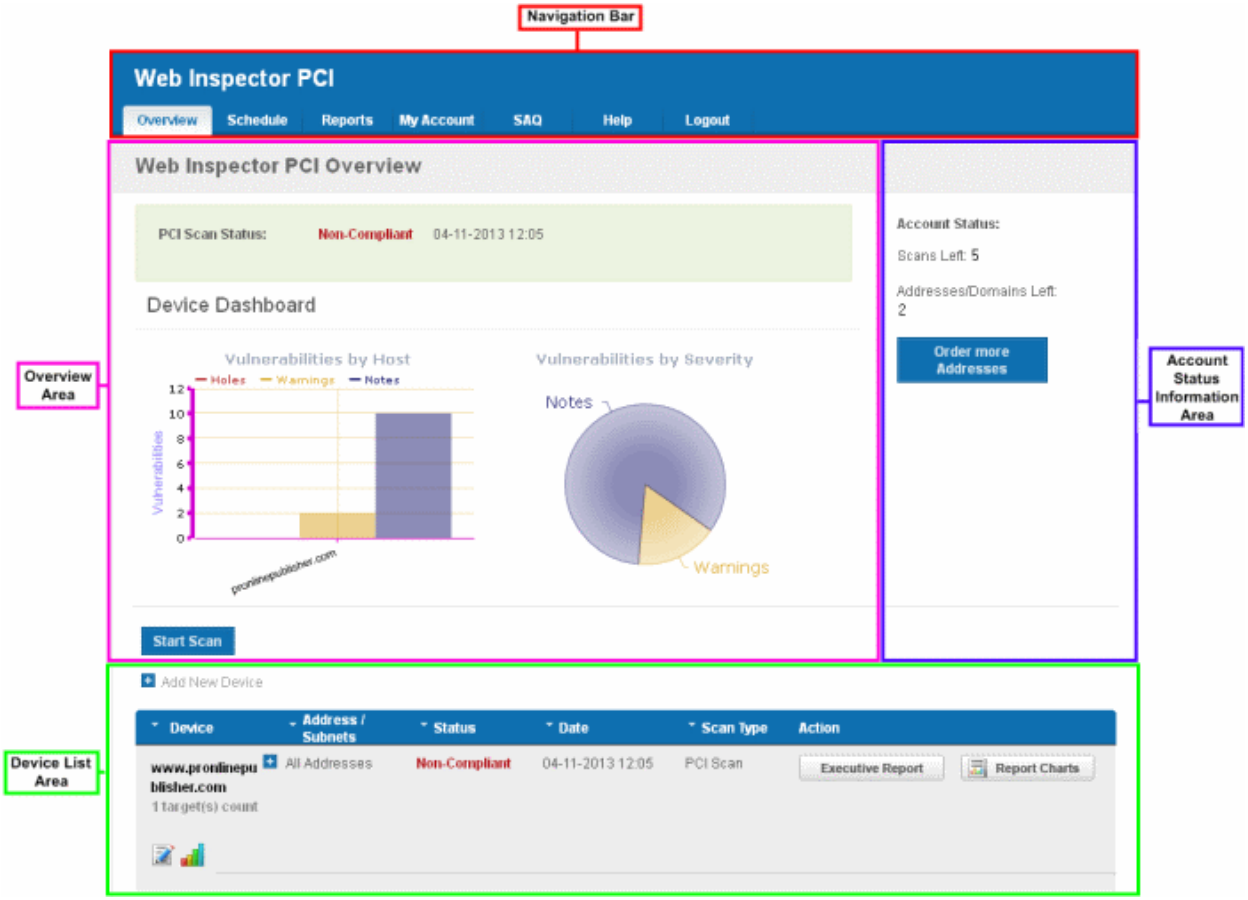
This section explains how to configure and run your first scanning task using the Web Inspector PCI Scanning Service.

Click the links below for detailed explanations:

- **Introduction to the Interface**
- **Running your PCI Scan**

2.5.1.1 Introduction to the Interface

The streamlined web-based main management interface provides easy access to each functional area of the Web Inspector PCI Scanning interface.



Navigation Bar

The navigation bar contains tabs to access each major functional area:

- **Overview** - Displays the 'Overview' and 'Device List' areas.

  The 'Overview' area provides the administrator with a summary of the last scan and serves as a launchpad for starting a new scan on the selected device.

  As the name suggests, the '**Device List**' area contains a list of all devices created and a summary of the last scan that was run on that device. It also allows the administrator to add, edit and configure devices and to view scan reports.

  Clicking the bar chart icon , underneath a device name will display statistics for that device in the main 'Overview' area.

- **Schedule** - Displays a list of existing scans, allows to add new schedule of scanning.

- **Reports** - Enables the administrator to view the summary and complete scan reports.
- **My Account** - Enables the administrator to configure account settings, view license information, configure email alerts, configure scan options, choose which plug-ins are to be deployed during a scan etc.
- **SAQ** - Allows the administrator to access the Self Assessment Questionnaire (SAQ) for their self-evaluation on compliance with the Payment Card Industry Data Security Standard (PCI DSS)
- **Help** - Contains links to the user guide and to the Comodo support ticketing system. Also enables the administrator to launch a simple setup wizard for PCI Scanning.

Overview Area

The 'Overview' area displays the status of the PCI Scans and a dashboard summary of the scan reports from last performed scan on the device selected from the 'Device List' area. **Click here for more details**.

Device List Area

The Device List area displays a list of devices added to Web Inspector PCI and provides an at-a-glance summary of the status of each device. This area also allows the administrators to create a new device, edit a device, add IP's to a device and open device reports. **Click here for more details**.

Account Status Information Area

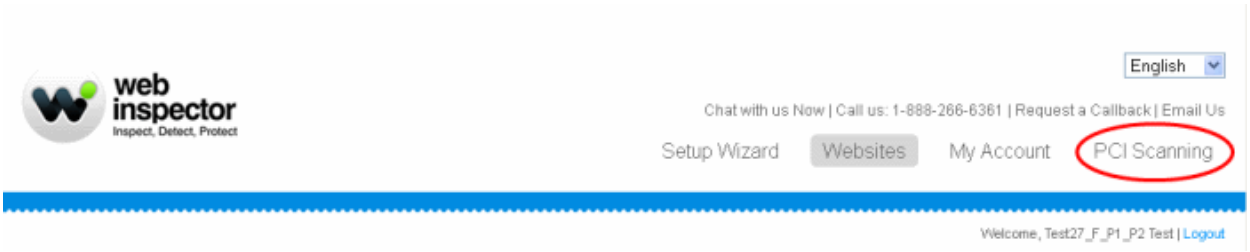
The Account Status Information Area displays the number of remaining scans and free IPs/Domains deserved by the administrator and also allows the administrator to purchase the service for more IPs. **Click here for more details**.

2.5.1.2 Running Your PCI Scan

Comodo Web Inspector PCI features a built-in Setup wizard for PCI scanning that provides the fastest and easiest way to add devices and to commence a PCI scan. The wizard is accessible from the interface after you login to your account.

1. Logging-in to Web Inspector PCI

To login in to the WI PCI interface, click the 'PCI Scanning' tab in WI main interface.



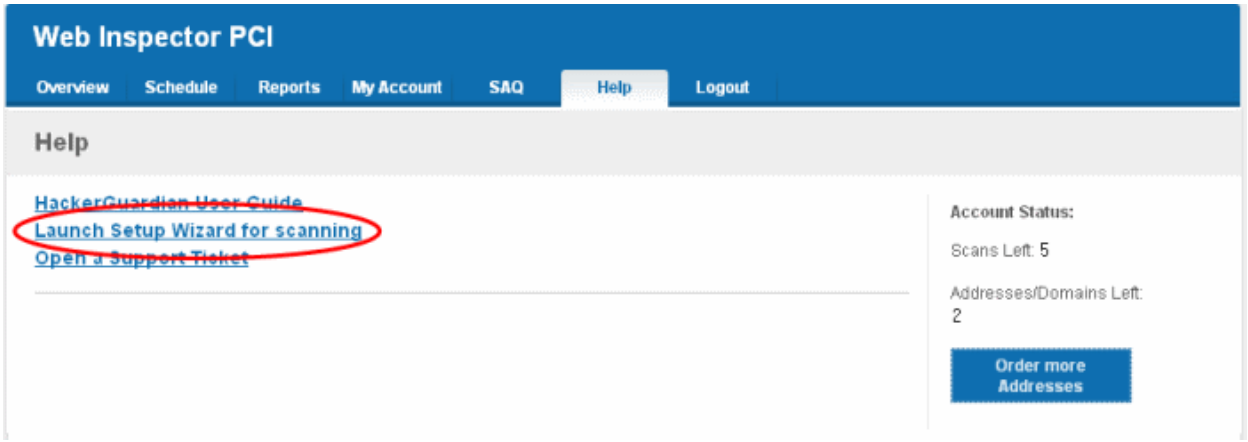
You will be taken to the Web Inspector PCI login page at **https://pci.webinspector.com/sas/login.jsp**

- Enter the same credentials that you are using for Web Inspector and click 'Login'.

After your username /password has been verified, you will be logged into the Web Inspector PCI administrators interface.

2. Launch Setup Wizard for PCI Scanning

Click the 'Help' tab from the Navigation bar to access the 'Help area'...



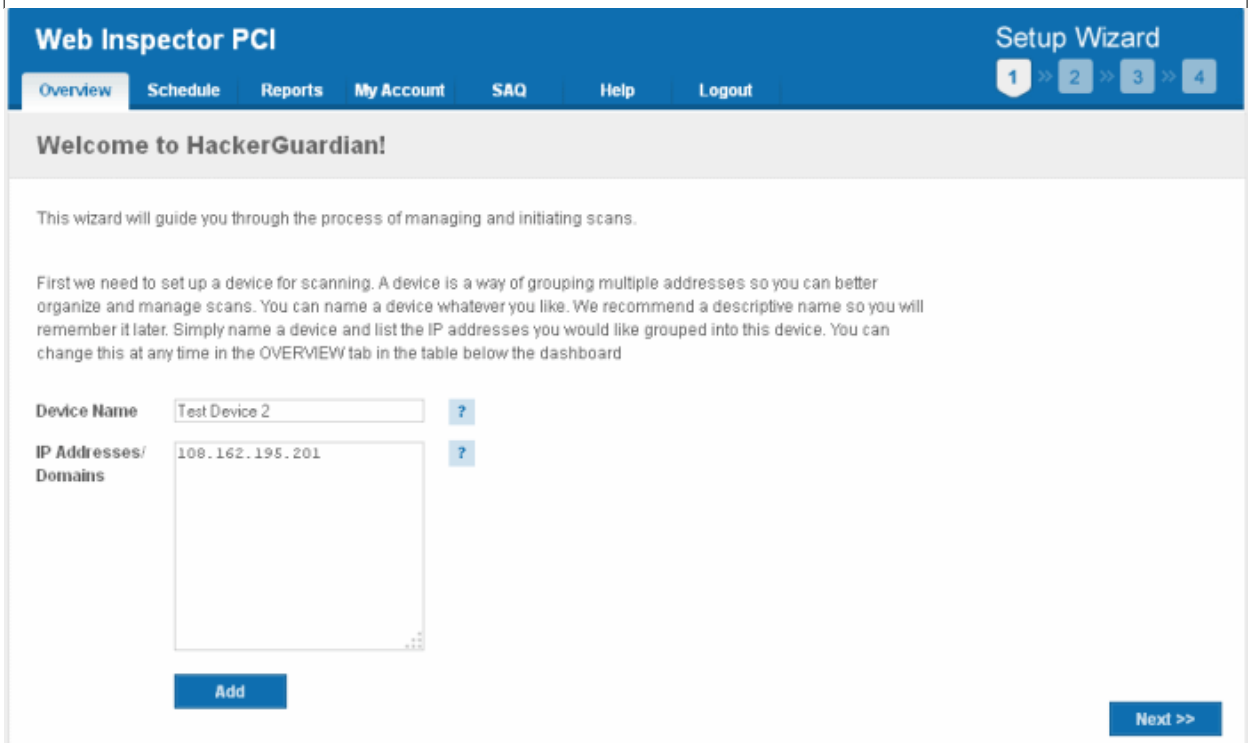
...and then click the link 'Launch Setup Wizard for scanning'. The wizard allows you to configure and start the scan in just five simple steps.

Step 1 - Add Device to Scan

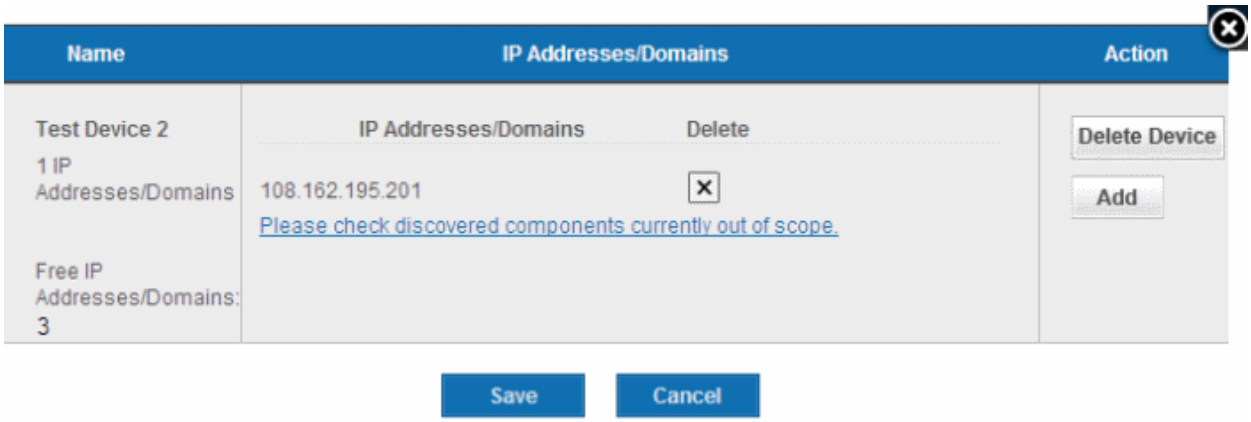
In order to run a PCI scan, you must first create a **Device**.

A Web Inspector PCI 'Device' is an umbrella term that describes a grouping of IP addresses and/or domains that are to be used as the target for a PCI scan. Web Inspector PCI 'Devices' can be used to 'mirror' a real life device. For example, a single machine in your organization's infrastructure may have multiple IP addresses (and domains) which host different services. The PCI DSS guidelines state that all these IP addresses and services must be scanned. By associating multiple IP addresses and domains to a single Web Inspector PCI 'Device', you can simulate your real-life device and scan it for PCI compliance in one pass. All customers must create a 'device' before PCI scanning can commence.

Note: The Web Inspector PCI is powered by Comodo HackerGuardian and so WI PCI will be accessing HG technology wherever required.



- When creating a device, Web Inspector PCI requires that you specify all the externally facing IP addresses/Domains belonging to your target server, host or other device.



Note: You can check for the IP addresses and the domains, which have been previously entered and deleted, or the IP Addresses that were detected through reverse lookups on the domains or common hostnames for the domains included previously, by clicking the link 'Please check discovered currently out of scope'. This helps you to identify the out of the scope components to be scanned and add to the created device.

- Click 'Save'

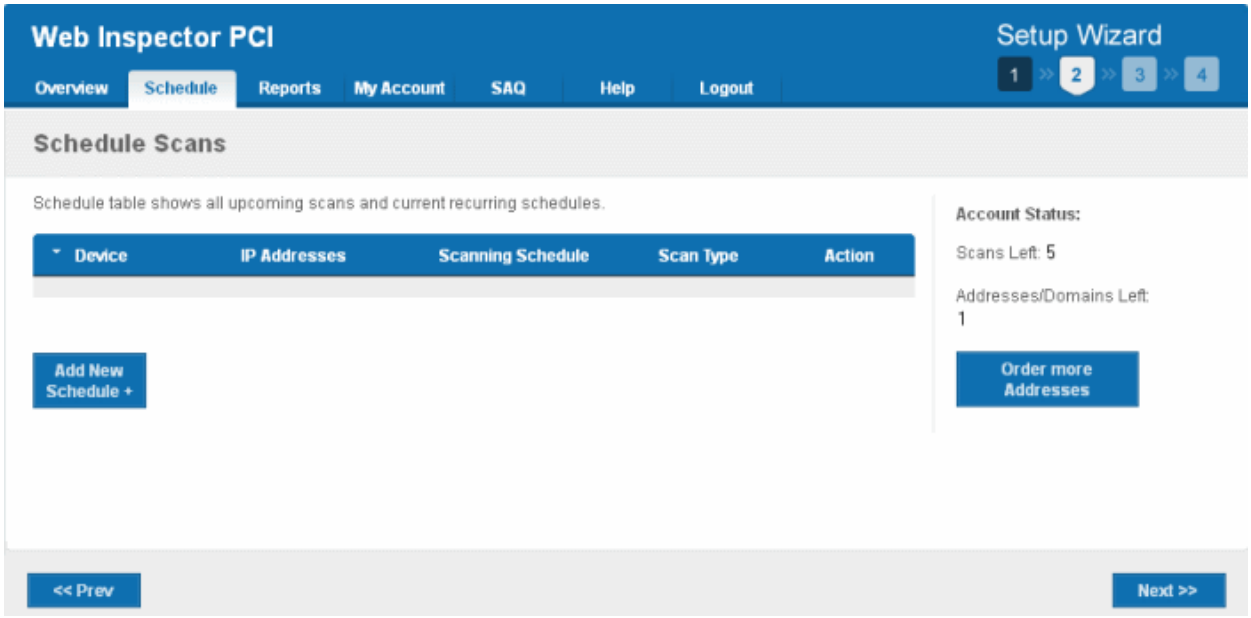
The device will be added to your Web Inspector PCI account and accessible from the **Overview** area.

- Click 'Add' if you want to add the next device. The device will be added to your Web Inspector PCI account and accessible from the **Overview** area.
- If you have finished adding new devices, click 'Next' to continue the wizard.

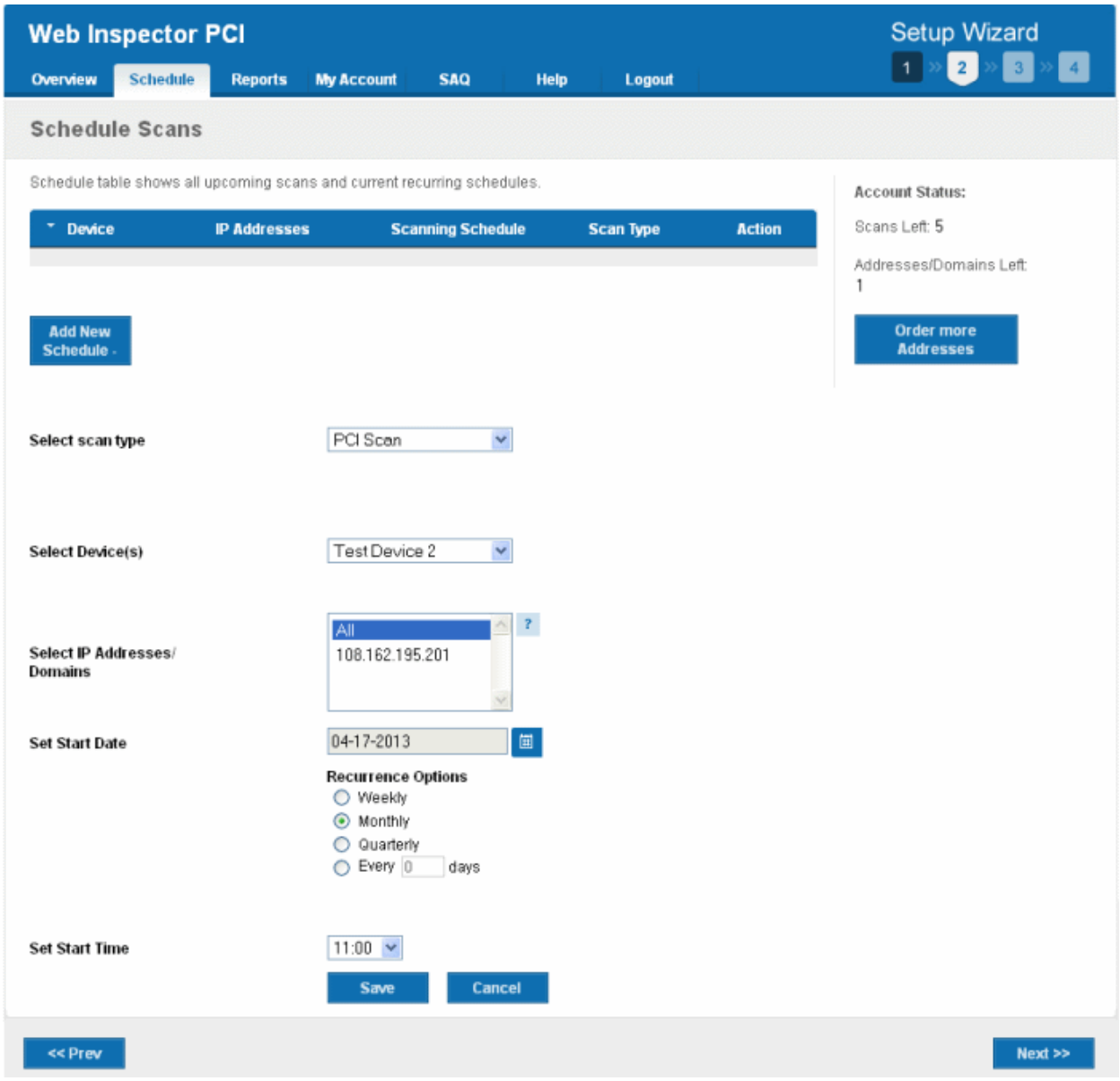
Note: You can also add new devices and edit existing devices from the Overview area of the interface. **Click here for more details**.

Step 2 - Schedule the PCI Scan

The next step is to schedule the scan if you wish to run the scan at a later time or periodically. This is optional. If you do not want to schedule the scan and want to run the scan instantly, just click 'Next' button to skip this step and go to **Step 3**.



If you want to schedule the scan, click 'Add New Schedule +' button.

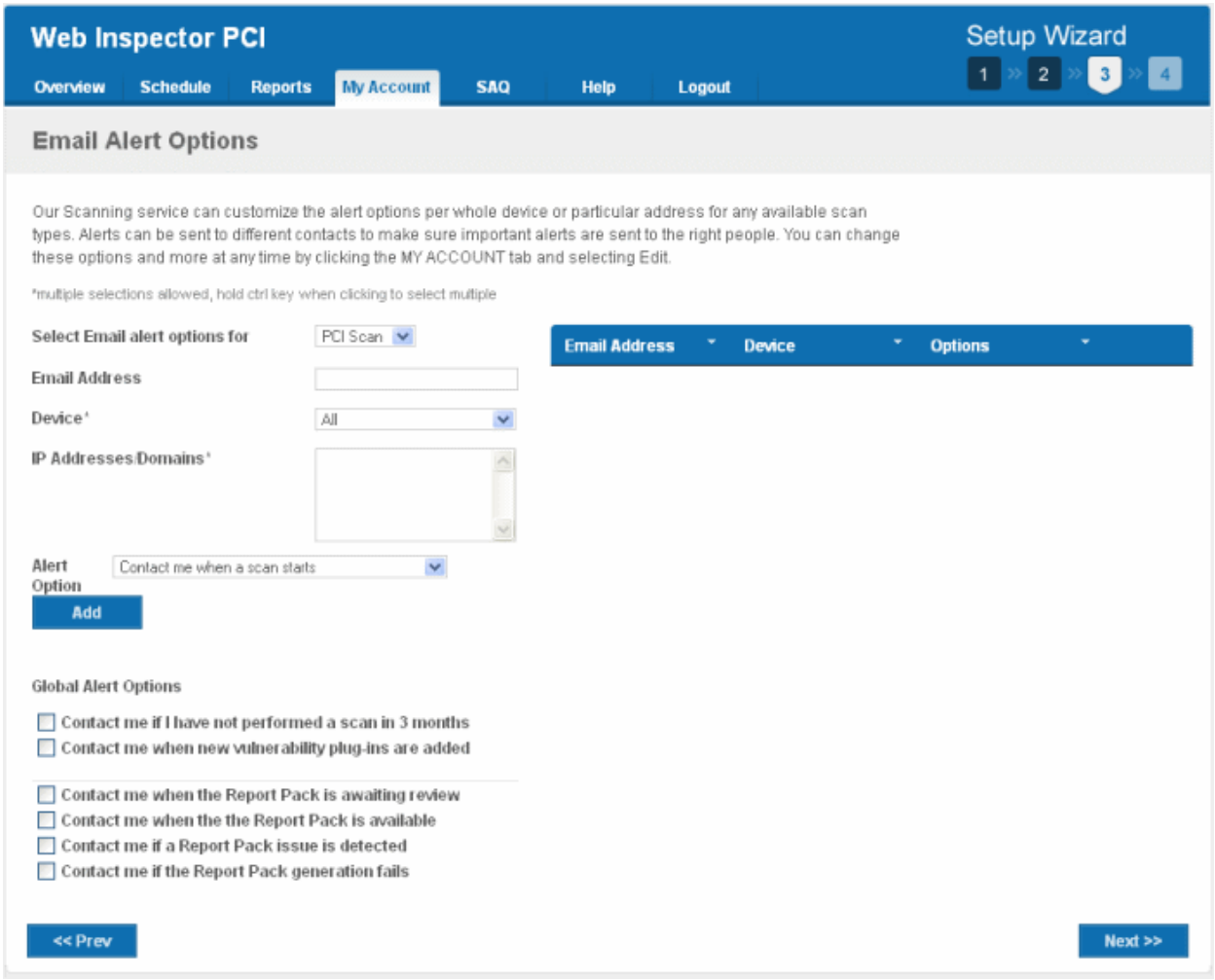


1. Select the device on which you wish to schedule the scan from Select Device(s) drop-down box.
2. Select the IPs/Domain pertaining to the selected device from Select IP(s) box. If you wish to scan all the IPs/Domains, select 'All'.
3. Select the start date for the scan schedule by clicking the calendar icon beside 'Set Start Date' text box.
4. Select the recurrence period.
    - Weekly - The scan will be performed once in a week on the specified day and time.
    - Monthly - The scan will be performed once in a month on the specified date and time.
    - Quarterly - The scan will be performed once in three months on the specified date and time.
    - Every N days - Scan will be performed once for every n days from the start date. For example, if you specified 2 then the scan will be performed on alternate days.
5. Select the start time from the 'Set Start Time' drop-down combo box and select your time zone from the Time Zone drop-down box. The scan will be started on the set time at the scheduled dates according to your time zone.
6. Click 'Save' to to apply your schedule.
7. Click 'Next' to continue the wizard.

Note: You can always view/modify/delete the schedules from the Scheduled Scans area of Web Inspector PCI interface. **Click here for more details**.

Step 3 - Configure PCI Scan Email Alert Options

Web Inspector PCI sends automated email notifications to administrators on events like commencement of manual/scheduled scans, results of scan and failure of scans. You can set your preferences for receiving the emails as you wish. If you do not want to have email alerts at this moment, Click 'Next' to go to **Step 4**. You can configure the alert notifications later by accessing the My Account area.



1. Select the Email Alert Options as given in the table below:

Form Element	Description
Select Email alert options for	Select the option 'PCI Scan' from the drop-down
Email Address	Enter the email address to which you wish to receive the scan alert message in the text box below 'Email Address'. This address can be different from the Account Email and can belong to the administrator for the specific device/domain.
Device	Select the Device for which you wish to receive the scan alert message from the drop-down box below 'Device'. If you wish to have the alert message for all the devices, select 'All'.
IP Addresses/Domains	Select the IPs/Domains pertaining to the device selected, for which you wish to receive the scan alert message from the text box below 'IP Addresses'. If you wish to have the alert message for all the IPs/Domains, select 'All'.
Alert Option	Select the event for which you wish to have email notification from the drop-down box below 'Options'.

2. Select the Global Alert Options

   - **Contact me if I have not performed a scan in 3 months** - Selecting this option instructs Web Inspector PCI to send a remainder message for an on-demand scan to the Account Email address if the administrator

has missed to perform a scan for three months.

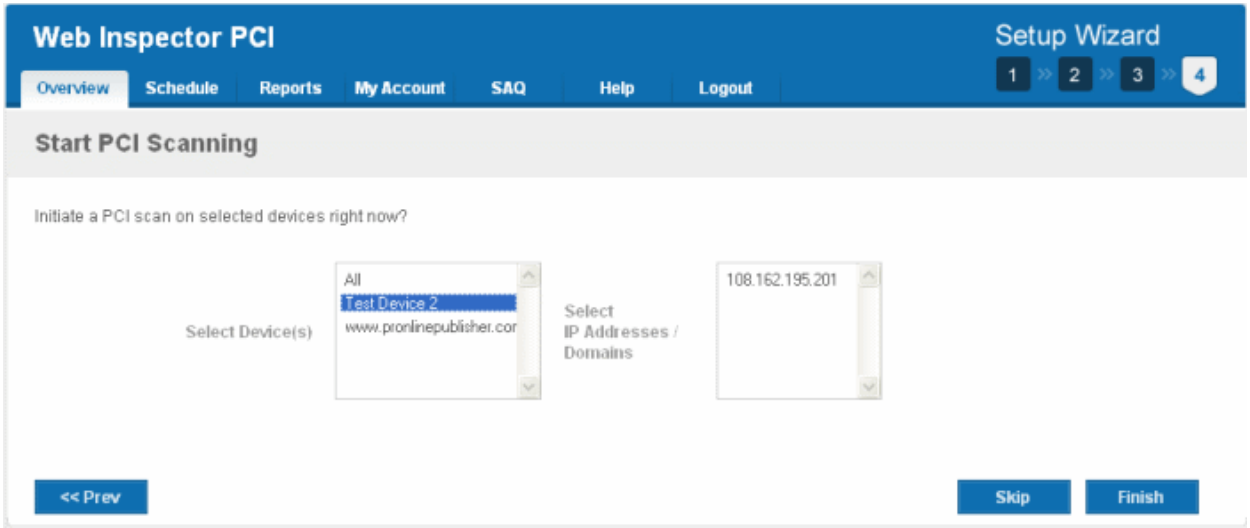
- **Contact me when new vulnerability plug-in are added** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever a new vulnerability plug-in is added to Web Inspector PCI, enabling the Administrator to deploy the plug-in in future scans.
- **Contact me when the Report Pack is awaiting review** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report is under review by a PCI CSS approved staff of Comodo. The Report will be available for download upon completion of the Review and approval by the Comodo staff. Refer to **Downloading Report Pack** for more details.
- **Contact me when the Report Pack is available** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report is ready for download after review by a PCI CSS approved staff of Comodo. Refer to **Downloading Report Pack** for more details.
- **Contact me if a Report Pack issue is detected** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area, Report has been reviewed by a PCI CSS approved staff of Comodo and an issue has been detected in the generated report. Refer to **Downloading Report Pack** for more details.
- **Contact me if a Report Pack generation fails** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report generation has failed for some reasons. Refer to **Downloading Report Pack** for more details.

3. Click 'Add' if you want to configure email settings more devices/events.
4. Click 'Next' to continue the wizard.

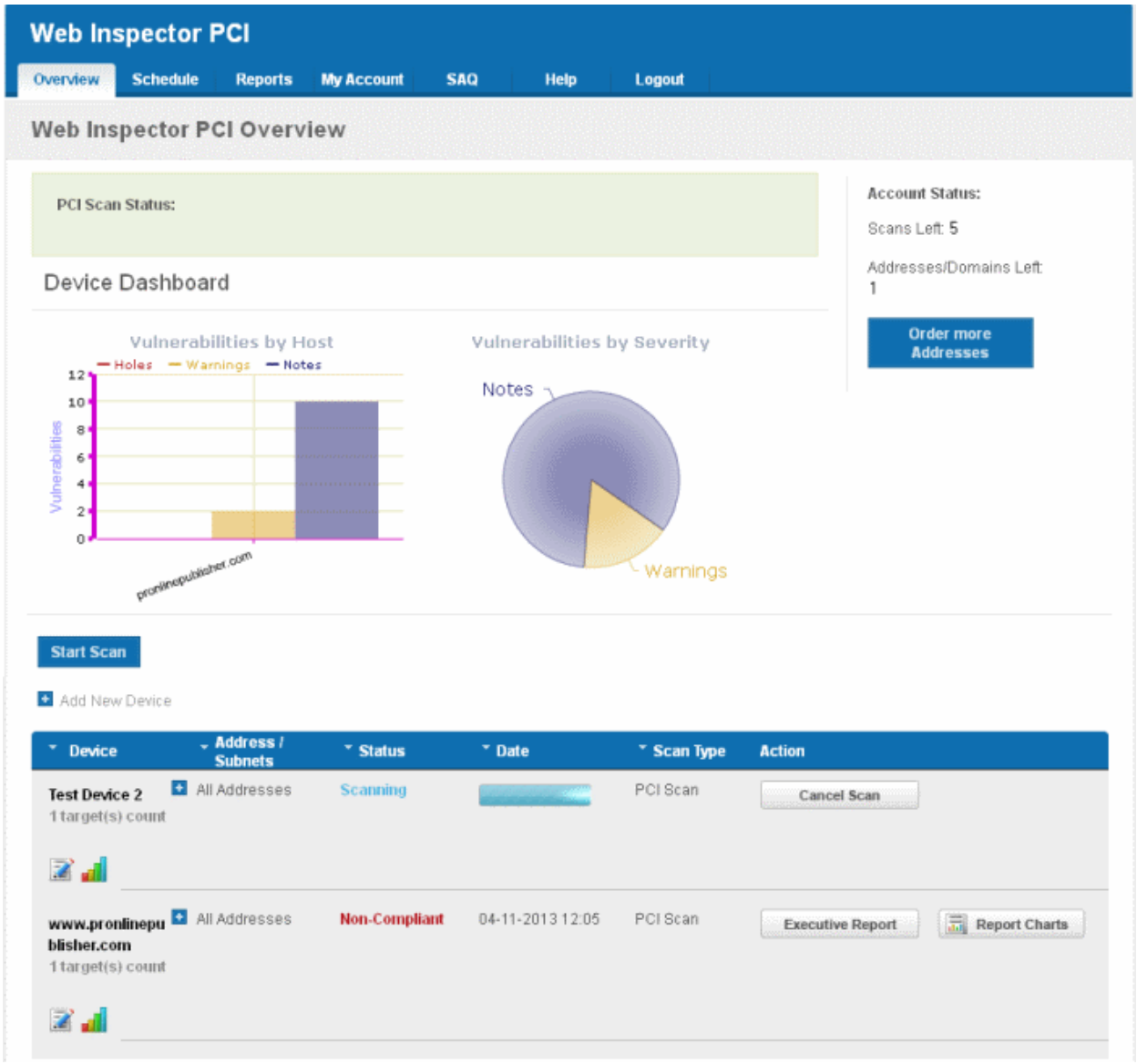
Note: You can always view/modify the email alert options from the My Account area of Web Inspector PCI interface. **Click here for more details**.

Step 4 - Start PCI Scanning

The next step is to commence the PCI scan on a device.



1. Select the device on which you wish to commence the scan from the 'Select Device(s)' box. If you want to run the scan for all the devices at once, select 'All'.
2. Select the IPs/Domains in the next box. If you want to run the scan for all the IPs/Domains associated with the selected device at once, select 'All'.
3. Click Finish to commence the scan. The scan will be initiated and you can see the progress in the 'Overview' area.



Note: You can also start scanning on any existing device from the 'Overview' area of the interface. **Click here for more details**.

2.5.1.3 Viewing Executive Report, Charts and Vulnerability Reports

- To view the Executive scan Report, click the Executive Report button beside the device name.
- To view the Charts page that contains at-a-glance summary of the scan results on the device and graphical representations of proportions of identified vulnerabilities according to their categories , click the charts page button in the row of the Device.
- To view the Vulnerability Report, click the Vulnerability Report button beside the IP/domain name from the list of IPs/domain names displayed by clicking the '+' button beside the Device name.

The Administrator can also download a Report Pack containing the pdf files of the reports for submitting to the acquiring bank from the Reports area, after a successful scan. Refer to **Web Inspector PCI Reports** for more details.

2.5.1.4 Accessing the Self Assessment Questionnaire

The PCI Data Security Standard Self Assessment Questionnaire (SAQ) is a validation tool intended to assist merchants and service providers who are permitted by the payment brands to self-evaluate their compliance with the Payment Card Industry

Data Security Standard (PCI DSS).

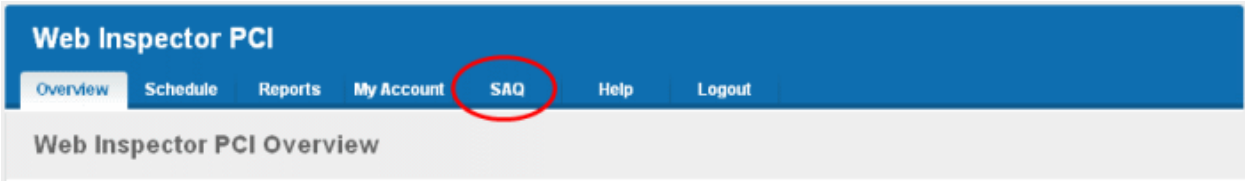
Comodo has simplified this often confusing process with the Web Inspector PCI Compliance Wizard - an intuitive web-based application guides merchants through every step of the PCI Self Assessment Questionnaire. Each question is accompanied by expert advice to help the merchant interpret and appropriately answer each question. At the end of the wizard you will find out immediately whether or not your answers qualify your organization as PCI compliant.

The wizard will provide:

- A Questionnaire Summary - Listing security control areas on which you failed compliance
- A custom 'Remediation Plan' for your company containing:
  - A comprehensive list of remedial actions that you need to take to attain full PCI compliance
  - A remediation planning tool enabling task prioritization and project management
  - Links to recommended products and services that will help you cost-effectively resolve non-compliant areas
- A 'ready-to-submit' PCI DSS Self Assessment Questionnaire

To access the wizard

- Click the SAQ tab in the Navigation bar of the Web Inspector PCI interface.

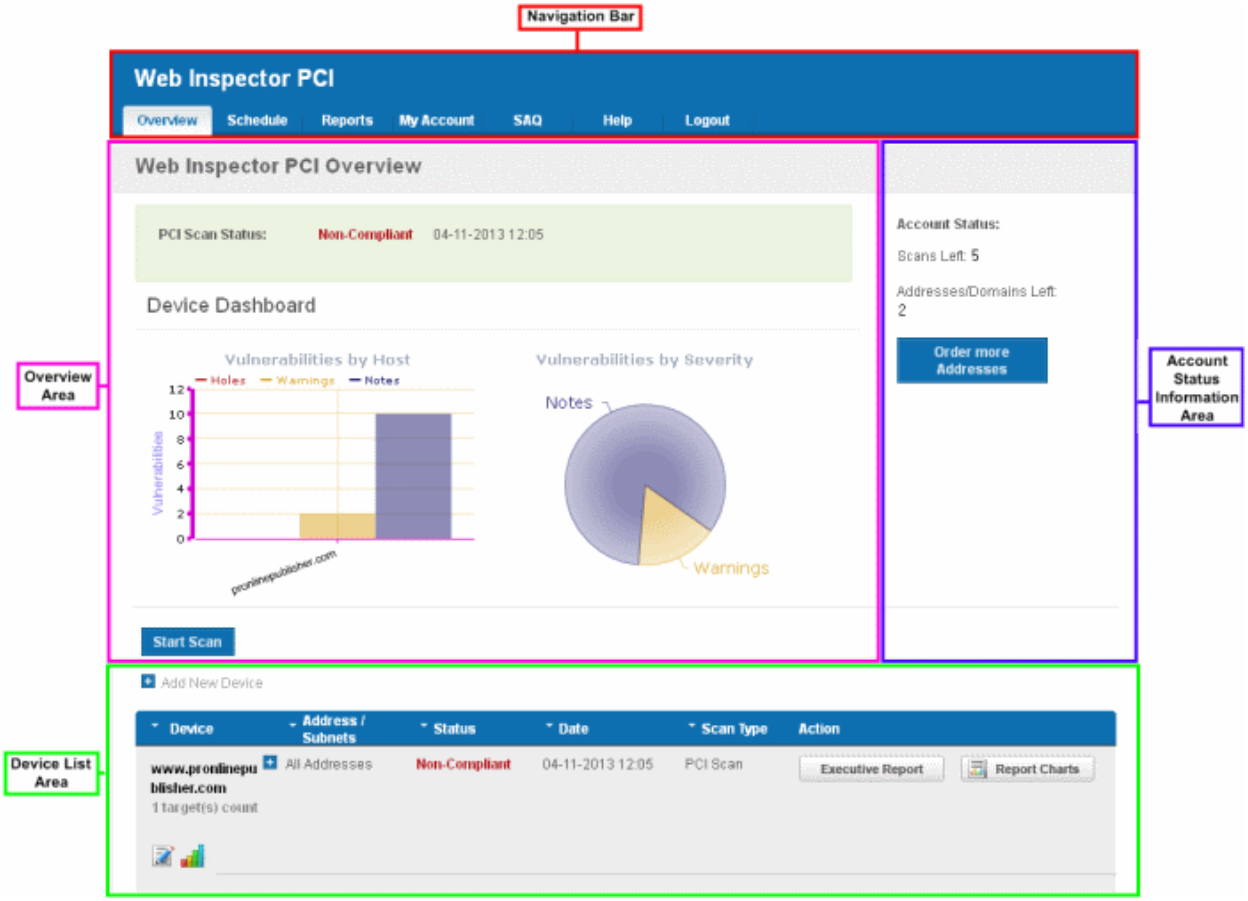


The wizard is a four-step process, where you have to register, select the SAQ type and complete the questionnaire. The final step provides the summary of SAQ.

Your progress is automatically saved after each question - allowing you to log out and return at a later date to complete the questionnaire. Your free account and responses are retained, giving you an opportunity to revise and modify any of your answers. This also allows you to update, schedule and track the progress of outstanding remediation tasks.

2.5.2 PCI Scanning Service - Infrastructure

The streamlined web-based main management interface provides easy access to all the functions of Web Inspector PCI. The navigation bar at the top has tabs to access different functional areas to add new devices, initiate scans, view reports, schedule scans, modify your account and scan settings etc. in simple steps. The account status displayed in the right pane informs your remaining scans, remaining IPs/Domains that you deserve and also enables you to purchase the service for more IPs and Domains.



Navigation Bar

- **Overview** - Displays the Overview area that provides the administrator with a report summary of last scan and serves as a launchpad for starting scans and the 'Device List area' that allows the administrator to add, edit and configure target devices; view scan reports.
- **Schedule** - Displays a list of existing scans, allows to add new schedule of scanning.
- **Reports** - Enables the administrator to view the summary and complete scan reports.
- **My Account** - Enables the administrator to configure account settings, view license, scan options and to choose which plug-ins are to be deployed during a scan.
- **SAQ** - Allows the administrator to access the Self Assessment Questionnaire (SAQ) for their self-evaluation on compliance with the Payment Card Industry Data Security Standard (PCI DSS)
- **Help** - Contains links to the download user guide and to the Comodo knowledgebase. Also enables the administrator to launch a simple setup wizard for PCI Scanning.

Overview Area

The 'Overview' area displays the status of the PCI Scans and a dashboard summary of the scan reports from last performed scan on the device selected from the 'Device List' area. **Click here for more details**.

Device List Area

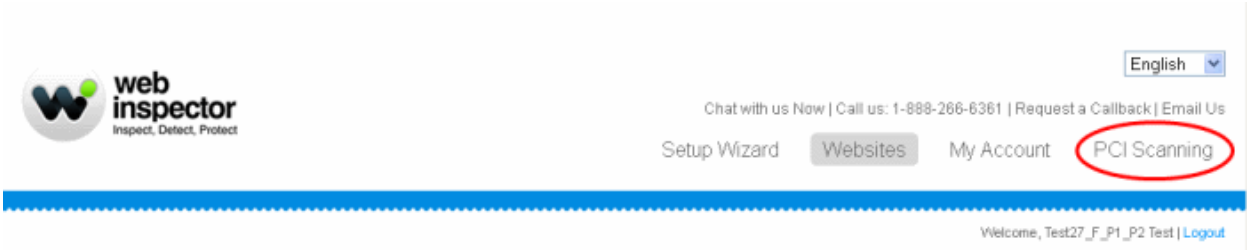
The Device List area displays a list of devices added to Web Inspector PCI and provides an at-a-glance summary of the status of each device. This area also allows the administrators to create a new device, edit a device, add IP's to a device and open device reports. **Click here for more details**.

Account Status Information Area

The Account Status Information Area displays the number of remaining scans and free IPs/Domains deserved by the administrator and also allows the administrator to purchase the service for more IPs. **Click here for more details**.

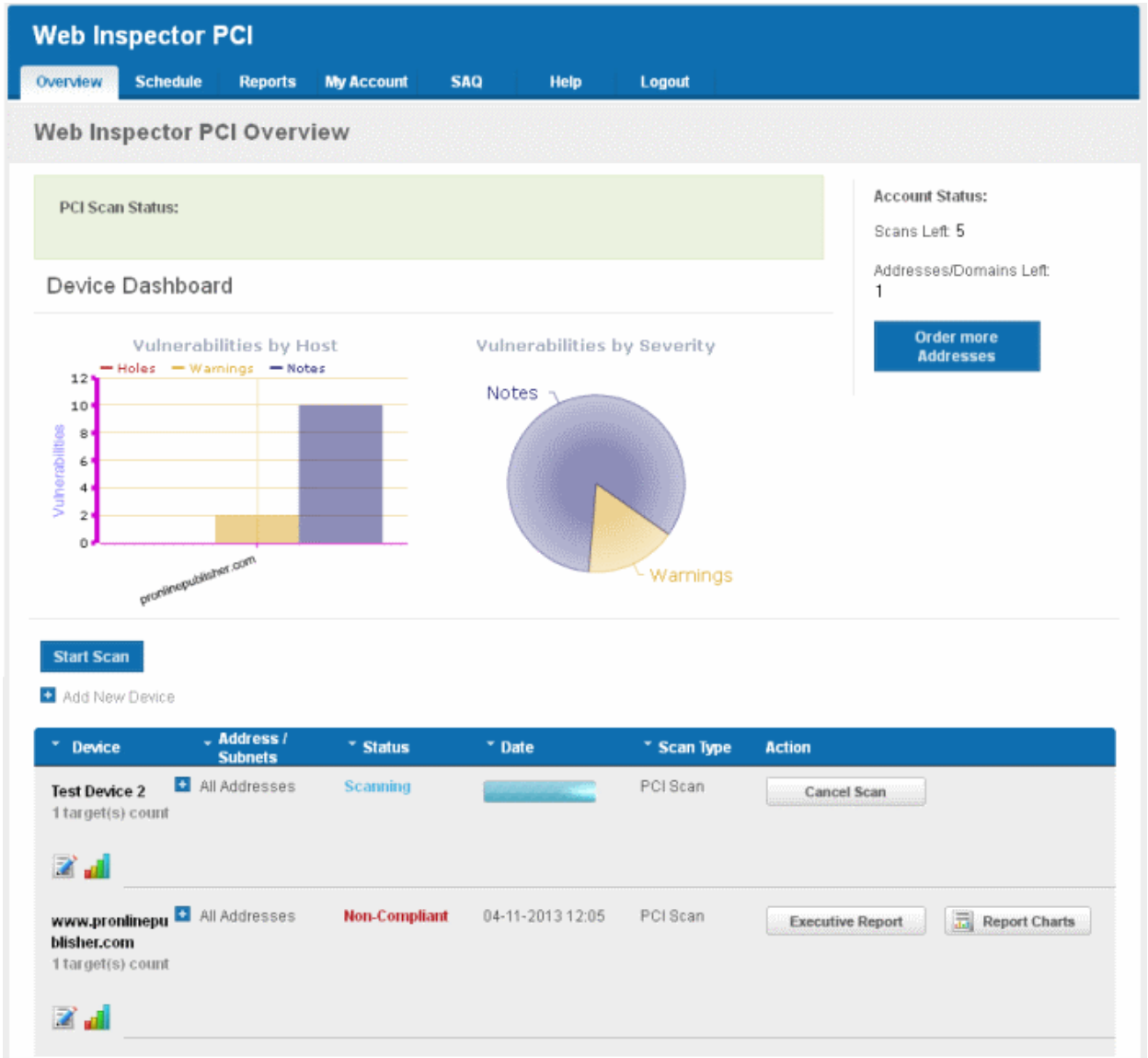
2.5.3 PCI Scan

To login in to the WI PCI interface, click the 'PCI Scanning' tab in WI main interface.



You will be taken to the Web Inspector PCI login page at **https://pci.webinspector.com/sas/login.jsp**

Once you login to your account, the main configuration area of the Web Inspector PCI interface is displayed. It contains two areas namely, Overview and List of Devices.

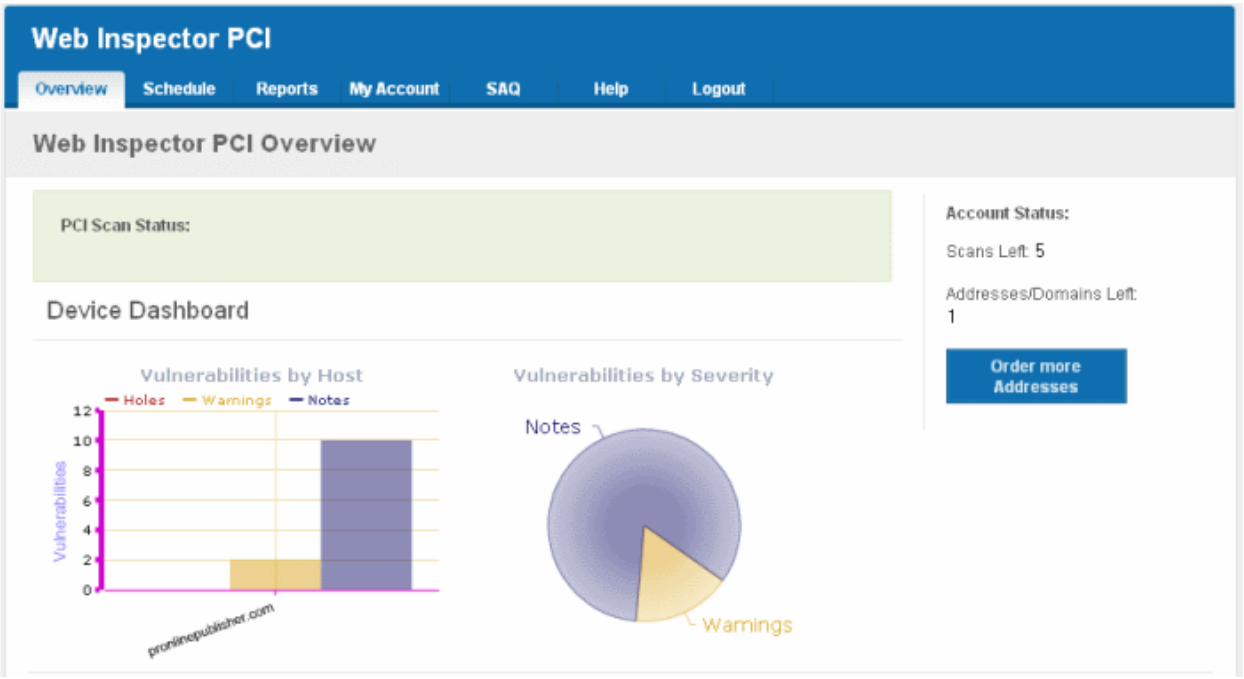


Click the following links for more details:

- **Overview**
- **List of Devices**

2.5.3.1 Overview

The 'Overview' area displays the status of the last run Web Inspector PCI Scans and a dashboard summary of the scan reports from the last scan performed on the device selected from the device list area.



Vulnerabilities by Host - A graphical representation of the information regarding the security holes found, security warnings, and security notes per host. Each category is represented by a different color. Pointing the mouse cursor over a bar in the graph displays the count of the respective item found.

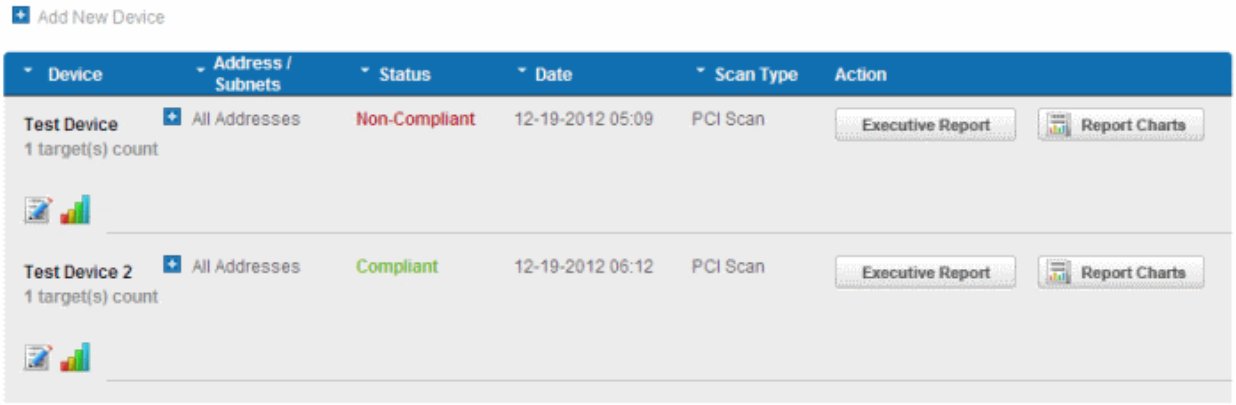
Vulnerabilities by Severity - A pie-diagram representation of information regarding the security holes, security warnings, and security notes found. Pointing the mouse cursor over a sector in the diagram displays the percentage proportion of the respective item found.

Definitions of Terms

Term	Description
Holes	A vulnerability, whose severity level according to PCI Severity Rating, is more than three or 'High', is identified as a Security Hole by Web Inspector PCI. To pass a PCI Compliance scan, no holes are to be found during the scan. If any holes are found, the merchant or the service provider must re mediate the identified problems and re-run the scan until the compliance is achieved. **Click here for more details**.
Warnings	A vulnerability, whose severity level, is more two or 'Medium', is indicated as a Security Warning by Web Inspector PCI. To pass a PCI Compliance scan, no warnings are to be found during the scan. If any warnings are found, the merchant or the service provider must re mediate the identified problems and re-run the scan until the compliance is achieved. **Click here for more details**.
Notes	A vulnerability, whose severity level, is more one or 'Low', is indicated as a Security Note by Web Inspector PCI. **Click here for more details**.

2.5.3.2 List of Devices

The 'Device List' area displays a list of existing devices for Web Inspector PCI scanning.



The following table provides description of information columns in this area.

Column	Possible Values	Description
Device	Text	Displays the device name (a friendly name which was given by administrator when **creating the device**) and the total number of IPs/Domains associated with the device.
Address/Subnets	Text	Displays all the associated domains (e.g. www.domain.com) or IP addresses that administrator specified for the device. Click the '+' button beside All IPs to view the list of IPs and the Domains.
Status	'Compliant'	Indicates that the device/IP/domain is PCI scan Compliant as per the last run PCI scan.
	'Non - Compliant'	Indicates that the device/IP/domain is not PCI scan Compliant as per the last run PCI scan.
	'Passed'	Indicates that the device/IP/domain has passed the last run Web Inspector scan
	'Failed'	Indicates that the device/IP/domain has failed the last run Web Inspector scan
Date	Numeric	Displays the date of last run scan for the device/IP/domain.
Scan Type	'PCI Scan'	Indicates that the device/IP/domain is PCI Scan enabled.
	'Custom Scan'	Indicates that the device/IP/domain is Custom Scan enabled.
Action	'Executive Report' button	Enables the Administrator to view executive scan report of the last scan run on the device. Available only for the devices and not for the individual IPs and Domains associated with the device. **Click here for more details**.
	'Report Charts' button	Enables the Administrator to view the Charts Page contains at-a-glance summary of the scan results on the device at the top and graphical representations of proportions of identified vulnerabilities according to their categories. **Click here for more details**.
	'Vulnerability Report' button	Enables the Administrator to view vulnerability report of the last run scan on the device/IP/domain. Available only for the individual IPs and Domains associated with a device. **Click here for more details**.
	Retest	Enables the Administrator to re-run the scan on the device/IP/domain that has failed any of the scans.
Note: Clicking on the up or down arrows beside each column heading sorts the list of devices in ascending order based on the		

category.

From this area, you can:

- **Create new device to enable PCI scanning**;
- **Manage existing devices**;
- **View a dashboard summary of scan results from a specific device**
- **View Executive Summary and Vulnerability Reports after running an on-demand scan.**

2.5.3.3 How to Create a New Device

In order to run a PCI scan, the administrator must first create a Device.

A Web Inspector PCI 'Device' is an umbrella term that describes a grouping of IP addresses and/or domains that are to be used as the target for a PCI scan. Web Inspector PCI 'Devices' can be used to 'mirror' a real life device. For example, a single machine in your organization's infrastructure may have multiple IP addresses (and domains) which host different services. The PCI DSS guidelines state that all these IP addresses and services must be scanned. By associating multiple IP addresses and domains to a single Web Inspector PCI 'Device', you can simulate your real-life device and scan it for PCI compliance in one pass. All customers must create a 'device' before PCI scanning can commence.

Important Notes

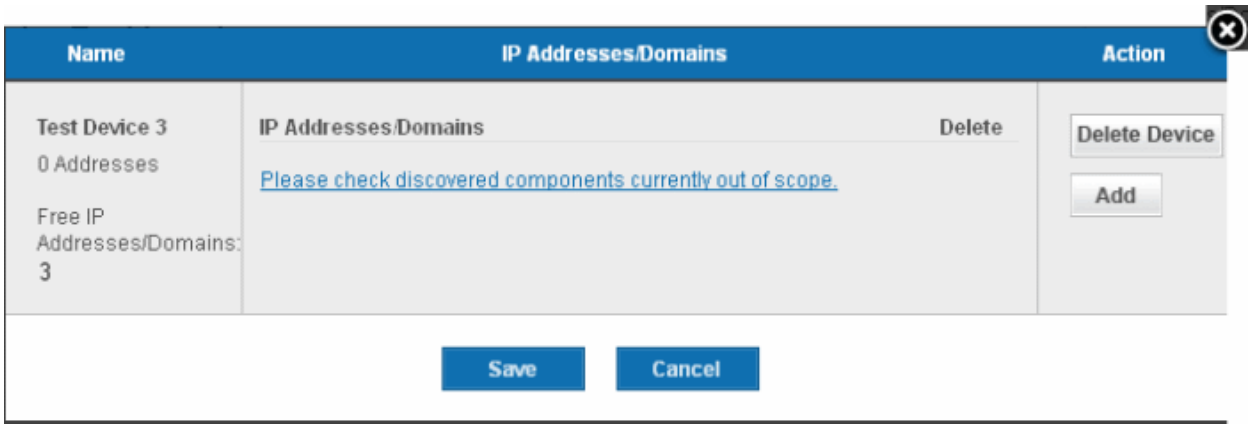
- When creating a device, Web Inspector PCI requires that you specify all the IP addresses belonging to your target server, host or other device.
- You must have at least one PCI scan compliancy license;
- You can add and scan as many IP's as allowed by your PCI license. (These IP's can be spread across as many devices as required.)
- At least one IP address or at least one domain name that you wish to scan for PCI compliancy has been added to the device. If you only specify a domain name then the PCI scan will actually take place on the IP address that this domain resolves to.
- IP address do not need validation. PCI compliance scans on IP's can begin immediately.

To create a new device

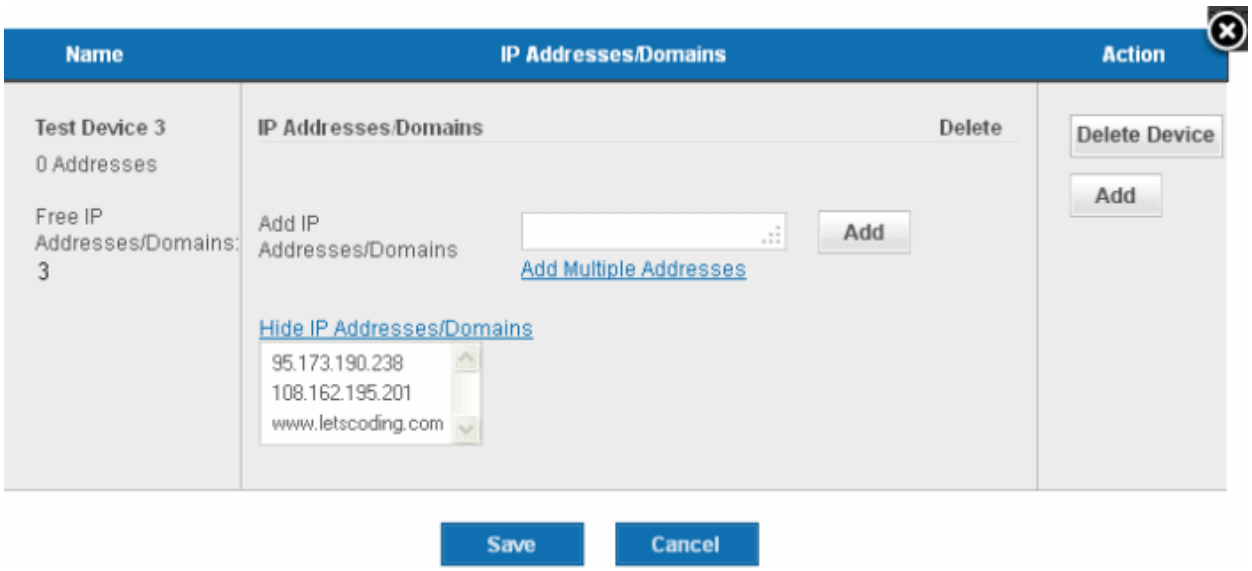
1. Switch to 'Device List' area of the interface.
2. Click on '+' button beside 'Add New Device' in the 'Device List' area (as shown below).

3. Select the PCI device radio button to enable PCI scanning on the device.

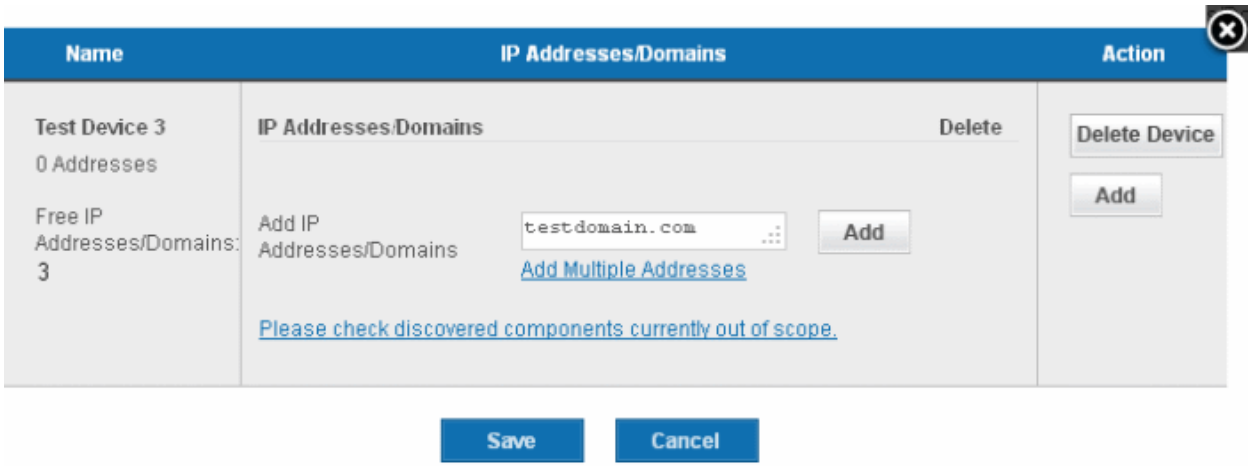
4. Enter a friendly name for the device in the 'Device Name' text box and click 'Continue'.



5. Click 'Add' in the next screen.
6. Enter the Domain name(s) or IP addresses to be associated with the device in the 'Add IPs or Domains' text box. You can add as many IP addresses as allowed by your PCI license. If you want to add more than one IP or domain, click on the link Add Multiple Addresses and enter the IPs/domains separated by commas.



Note: You can check for the IP addresses and the domains, which have been previously entered and deleted, or the IP Addresses that were detected through reverse lookups on the domains or common hostnames for the domains included previously, by clicking the link 'Please check discovered currently out of scope'. This helps you to identify the out of the scope components to be scanned and add to the created device.

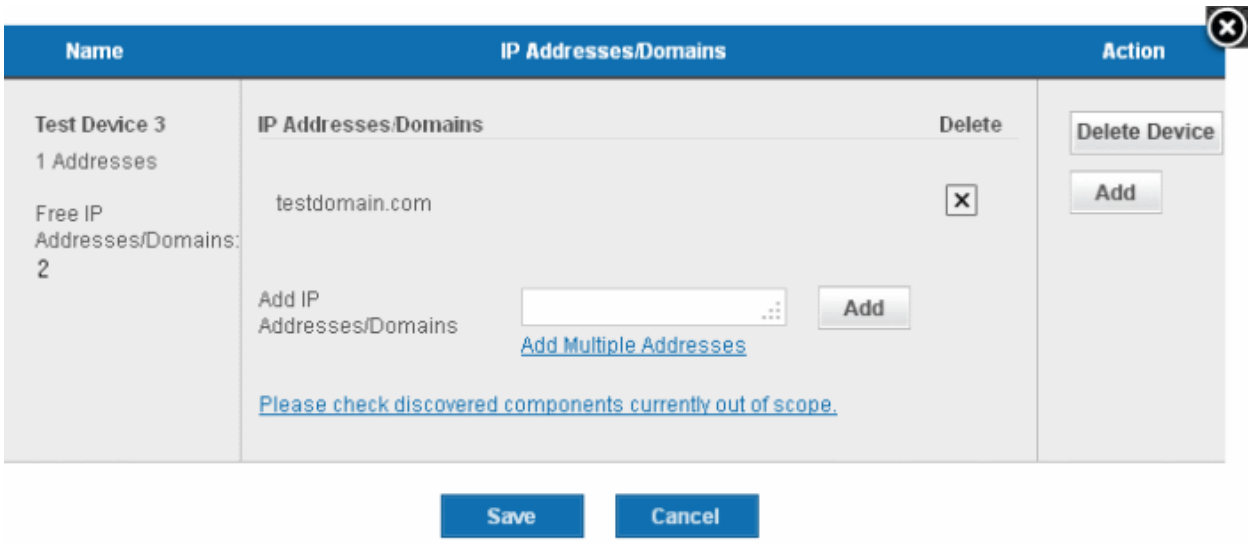


Note: You must enter external IP addresses in these fields. Web Inspector will not run PCI scan on private IP addresses that refer to machines internal to your network.

Private IPs ranges are defined by RFC 1918 as:

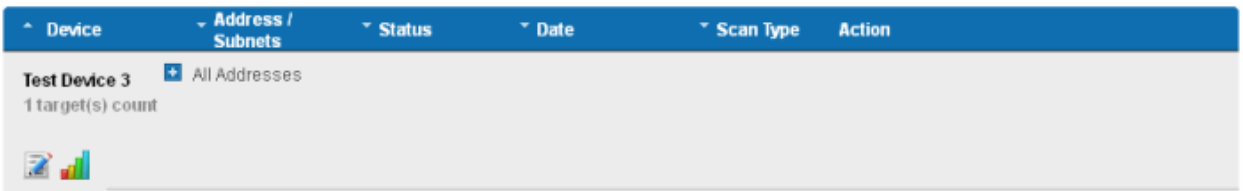
10.0.0.0 - 10.255.255.255 (10/8 prefix)
172.16.0.0 - 172.31.255.255 (172.16/12 prefix)
192.168.0.0 - 192.168.255.255 (192/168/16 prefix)

7. Click the 'Add' button beside the text box.



8. The IP(s)/Domain(s) will be added to the device. If you want to add more IPs or Domains, repeat from Step 6.
9. After adding required IPs and Domains to the Device, Click 'Save'.

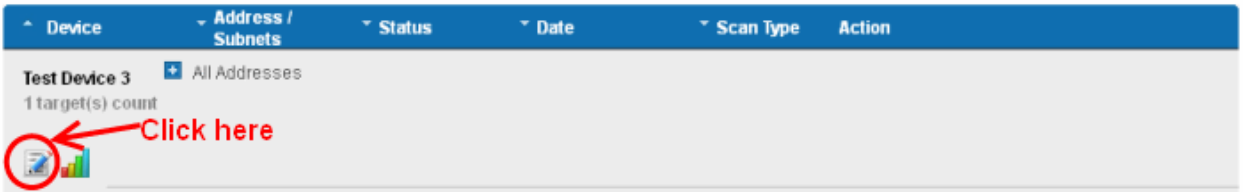
The device will be added to your Web Inspector PCI Account. The device will be validated for PCI compliance on your first on-demand scan and the status will be updated accordingly.



2.5.3.4 Devices Management

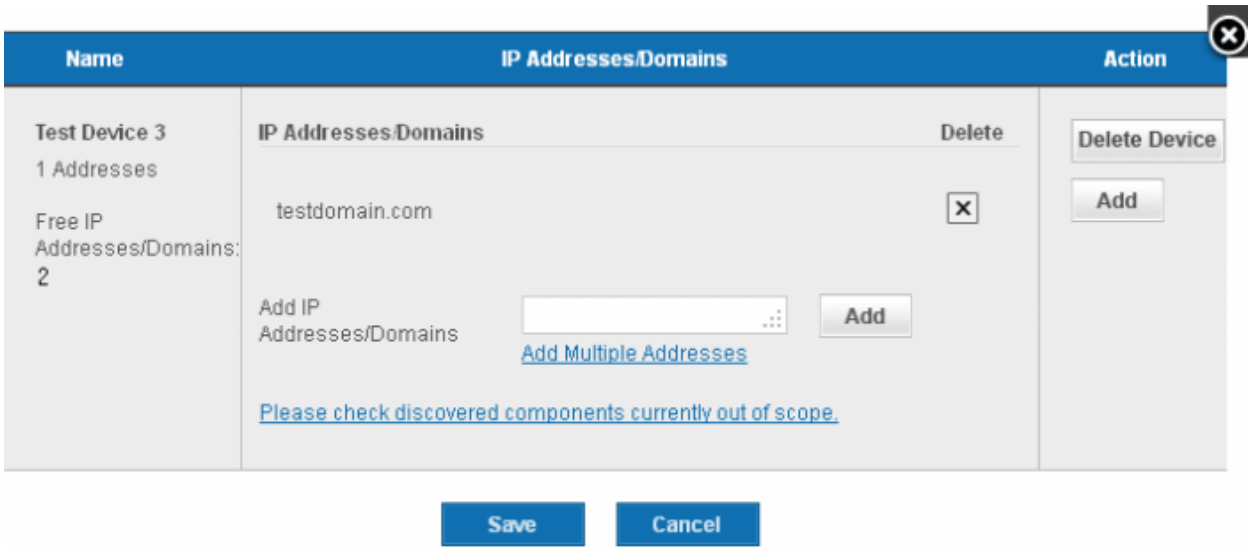
The 'Device List' area of the Web Inspector PCI interface displays all devices that have been created in this account. From here the administrator can edit device details, delete a device, move a domain to another device or remove a domain from a device.

To access the interface for device management, click the edit button beneath the device as shown below.



Adding Additional IPs/Domains

1. Open Edit Interface as explained **above**.



2. Enter the Domain name(s) or IP addresses in the 'Add IP Addresses/Domains' text box and click Add button beside the textbox.
3. Click Save.

Removing a IP/Domain from a Device

1. Open Edit Interface as explained **above**.
2. Click the 'X' button beside the IP/Domain name and click 'Save'.

Moving IP/Domain to Another Device

- **Remove the IP/Domain** from the device in which it is existing and **add** it to the destination device.

Removing a Device

1. Open Edit Interface as explained **above**.
2. Click the 'Delete Device' button and click 'Yes' in the confirmation dialog.

2.5.3.5 Start Scanning

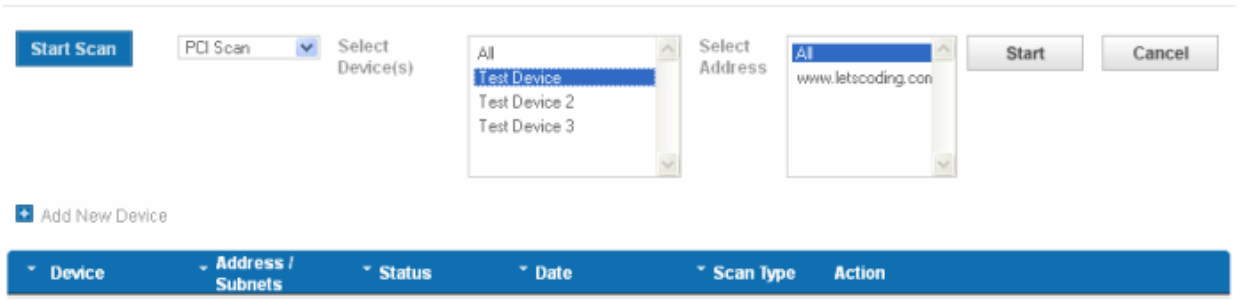
Once the device is added, you can scan the target device.

Note: The IP addresses that Web Inspector PCI scans originate from are 208.116.56.32/28 and 91.209.196.32/28. You may have to modify your firewall to allow scans from this range.

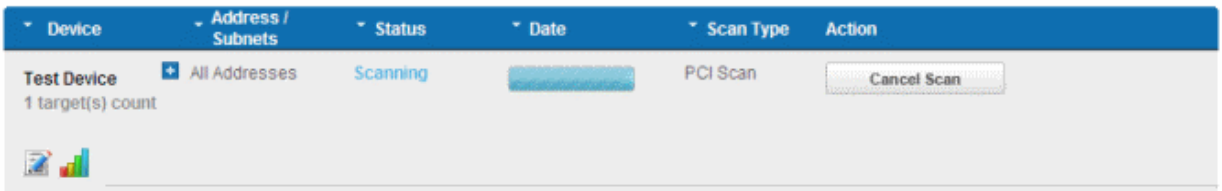
To start scanning a selected device

1. Click 'Start Scan' button in the upper pane of the Overview area as shown below.

The scan configuration options will be displayed.



2. Select the device to be scanned in the next box. If you want to run the scan for all the devices at once, select 'All'.
3. Select the IPs/Domains in the next box. If you want to run the scan for all the IPs/Domains in the selected device at once, select 'All'.
4. Click 'Start'

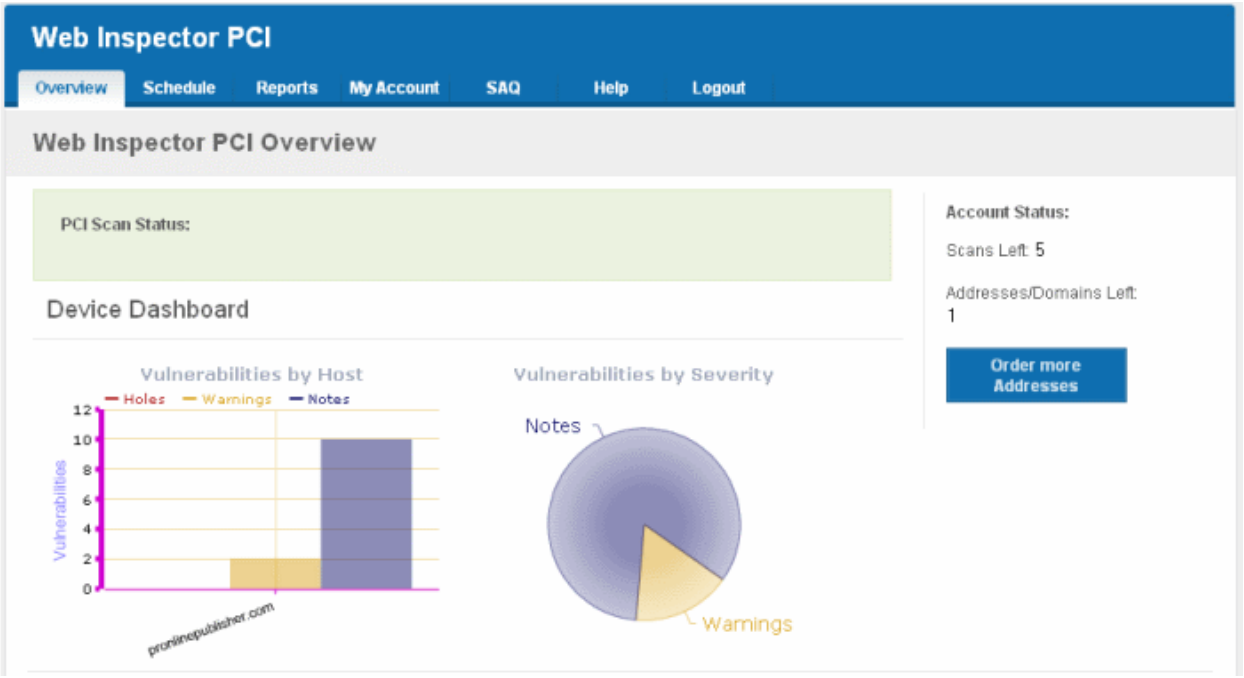


Tip: If you want to run the scan simultaneously on multiple devices, you can start scanning on the next device by following the

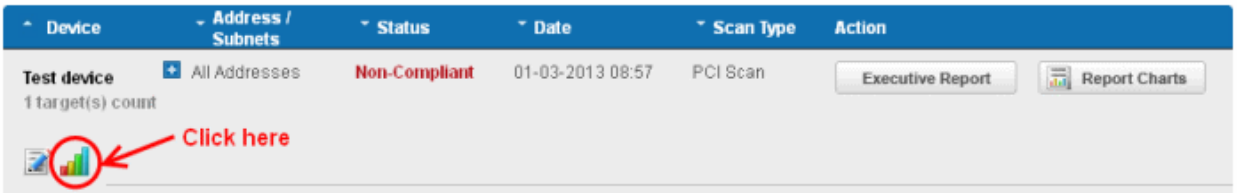
same procedure when the scan in running in one device. Also, you can terminate the scan at any moment by clicking 'Cancel Scan' button.

2.5.3.6 Viewing a Dashboard Summary of Scan Results

On completion of scan, a dashboard summary of the results will be displayed in the upper pane of the 'Overview' area.

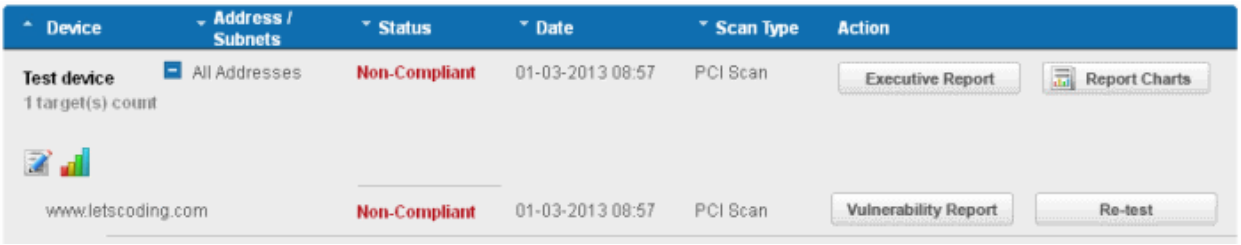


If you want to switch to the scan results of other devices, click the bar-graph button beneath the device name as shown below.



2.5.3.7 Viewing Executive Report, Charts and Vulnerability Reports

- To view the Executive scan Report, click the Executive Report button beside the device name.
- To view the Charts page that contains at-a-glance summary of the scan results on the device and graphical representations of proportions of identified vulnerabilities according to their categories, click the Report Charts button beside the device name.
- To view the Vulnerability Report, click the Vulnerability Report button beside the IP/domain name from the list of IPs/domain names displayed by clicking the '+' button beside the Device name.



The Administrator can also download a Report Pack containing the pdf files of the reports for submitting to the acquiring bank from the Reports area, after a successful scan. Refer to **Web Inspector PCI Reports** for more details.

2.5.4 Internal Scanning

The Internal Scanning feature allows customers to run Web Inspector PCI vulnerability scans on computers located on a local area network (LAN). These computers are typically 'inside' the company's private network and are protected by a perimeter firewall or other network security device.

Note: The Web Inspector PCI is powered by Comodo HackerGuardian and so WI PCI will be accessing HG technology wherever required.

In order to run an internal scan, the administrator must first install and configure the HackerGuardian (HG) internal scanning Agent on the local network.

Once installed and configured, this Agent will establish a secure connection to a HackerGuardian Access server which will in turn establish a secure communication channel (connection) to a HackerGuardian scanning server. The scanning server will then be able to connect to and run scans on the local computers located at the IP addresses that have been specified as Local Devices in Web Inspector PCI. The Agent software is available as an iso image (to create a Live CD), as files (to create a Live USB stick) or as files to run from a VM ware player. The scans can be run directly from the 'Overview' area of Web Inspector PCI interface after installation and configuration of the agent. (see '**How to install the Agent**' , '**Configuring the Agent**' and '**Using the Agent - Main Menu**' for more details on set up and configuration of the agent. See '**Start Device Scanning**' to learn how to run an internal scan once the agent has been installed.)

There are two main prerequisites to running an internal scan:

- The creation of a 'Local Device' as a target for the scans in the 'Device List' area of the Web Inspector PCI interface. Local Devices are defined by one or more IP addresses.
- The HG internal scanning Agent has been installed on your local network to communicate with the HackerGuardian scanning servers via VPN connection.

Once these two steps are complete, users can start an internal scan on the device by clicking the 'Start Scan' button in the 'Overview' area.

For creating local devices and to run scans on the local devices, switch to 'Device List' area of Web Inspector PCI. **Click here** for more details on the interface.

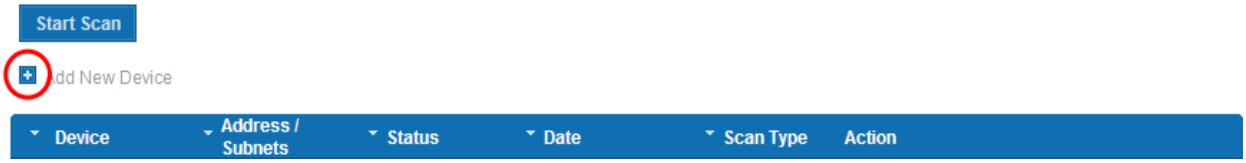
Note: The Internal Scanning feature allows you to create and edit local target devices and to manually run scans on selected devices. Unlike other, 'external', devices, 'LAN Devices' are defined using IP addresses only.

Click on the links below for detailed explanations on steps involved in the Internal Scanning.

- **Create new device to enable Custom (Internal) scanning**;
- **Manage existing devices;**
- **Install the Internal Scanning Agent**;
- **Configuring the Internal Scanning Agent**;
- **Start Scanning an Internal Device**;
- **View a dashboard summary of scan results from a specific device;**
- **View Reports and Statistics .**

2.5.4.1 How to Add a New Device

1. Switch to 'Device List' area of the interface.
2. Click on '+' button beside 'Add New Device' in the upper pane (as shown below).

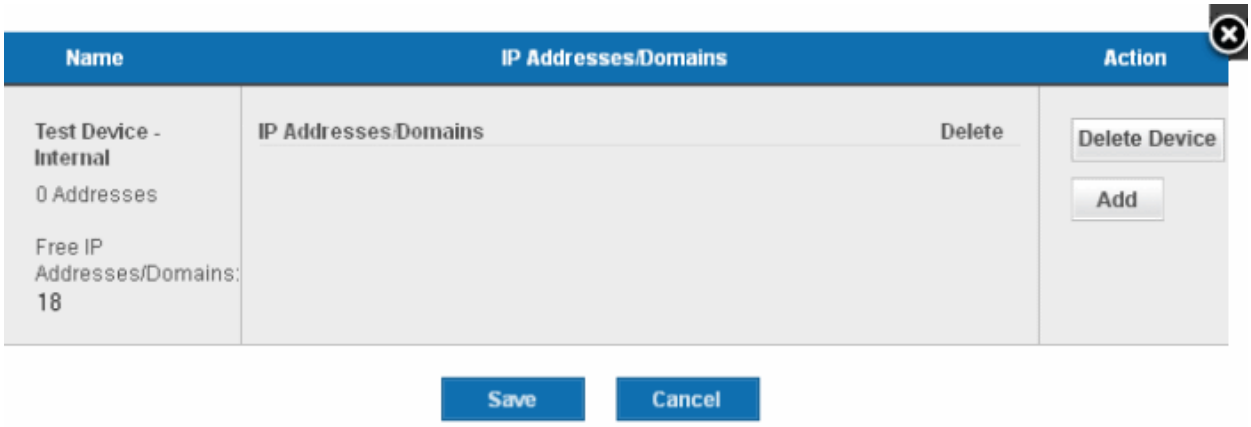


3. Select the 'Local' radio button to enable internal scanning on the device

4. Enter a friendly name for the device in the 'Device Name' text box and click 'Continue'.

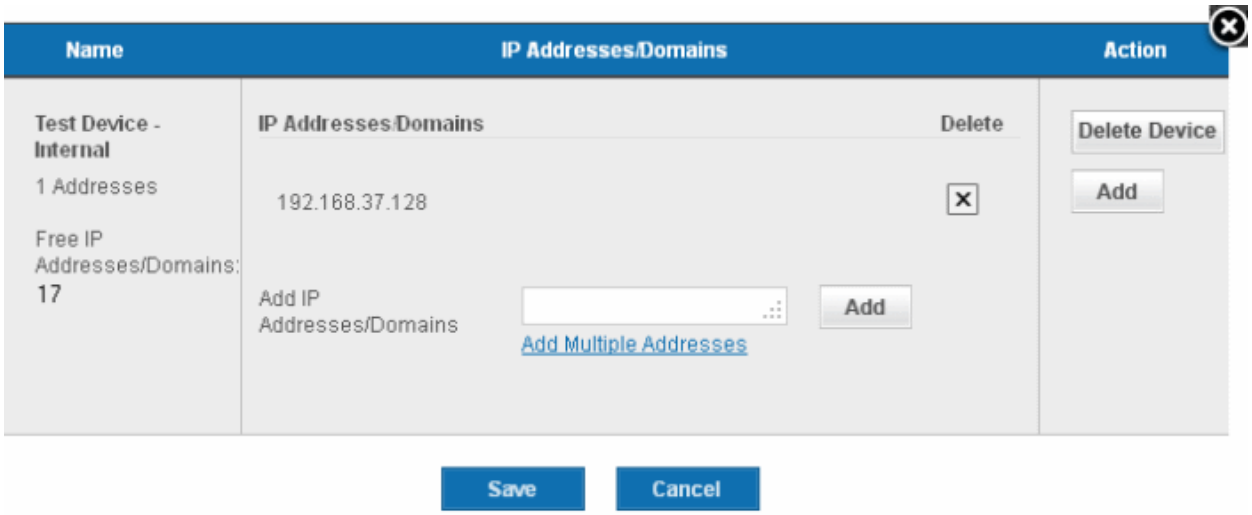
Important Note: The Device Name specified in this field must exactly match the device name that you set for the Device while installing and configuring the internal scanning agent in the local network. (see '**Configuring the Agent**' and '**Using the Agent - Main Menu**' for more details on set up and configuration of the agent.)

5. Click 'Add' in the next screen.



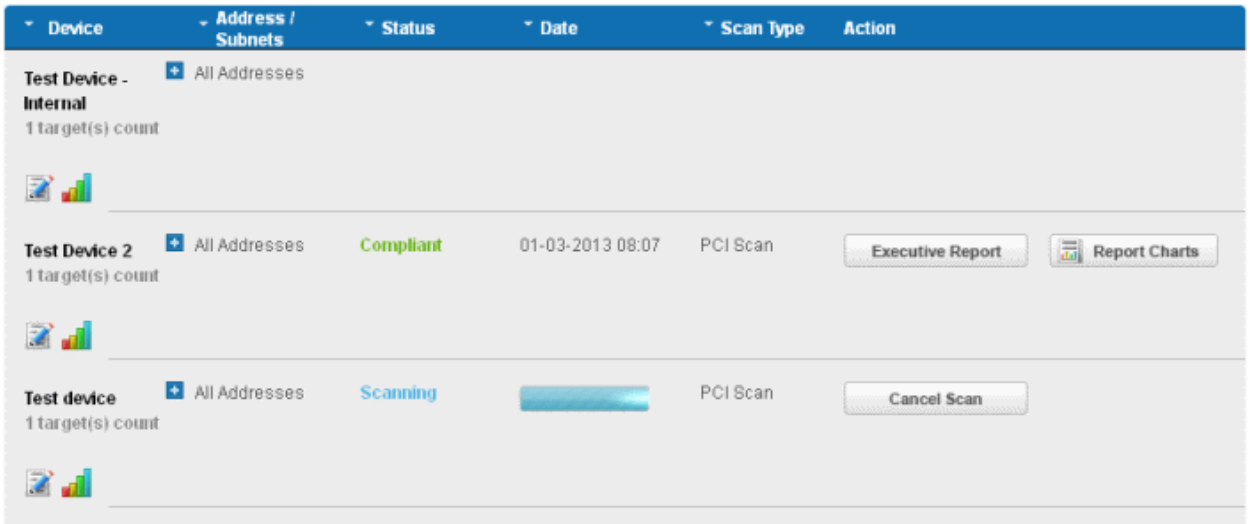
6. Enter the IP addresses to be associated with the device in the 'Add IPs or Domains' text box. The IP addresses you specify here will be scanned whenever you run a scan on the 'Device Name'. You can add as many IP addresses as allowed by your license. If you want to add more than one IP, click on the link Add Multiple Addresses and enter the IPs separated by commas. IP ranges can also be specified with each address in that range counting as one of your licensed total IP's.

7. Click the 'Add' button beside the text box.



8. The IP(s)/Domain(s) will be added to the device. If you want to add more IPs or Domains, repeat from Step 6.
9. After adding required IPs and Domains to the Device, Click 'Save'.

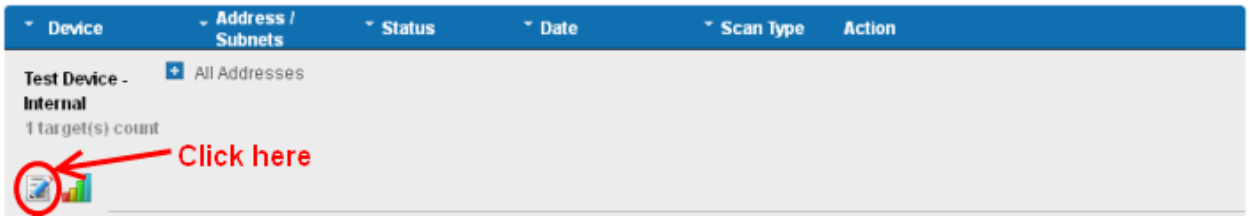
The device will be added to your Web Inspector PCI Account. The device will be validated for PCI compliance on your first on-demand scan and the status will be updated accordingly.



2.5.4.2 Internal Devices Management

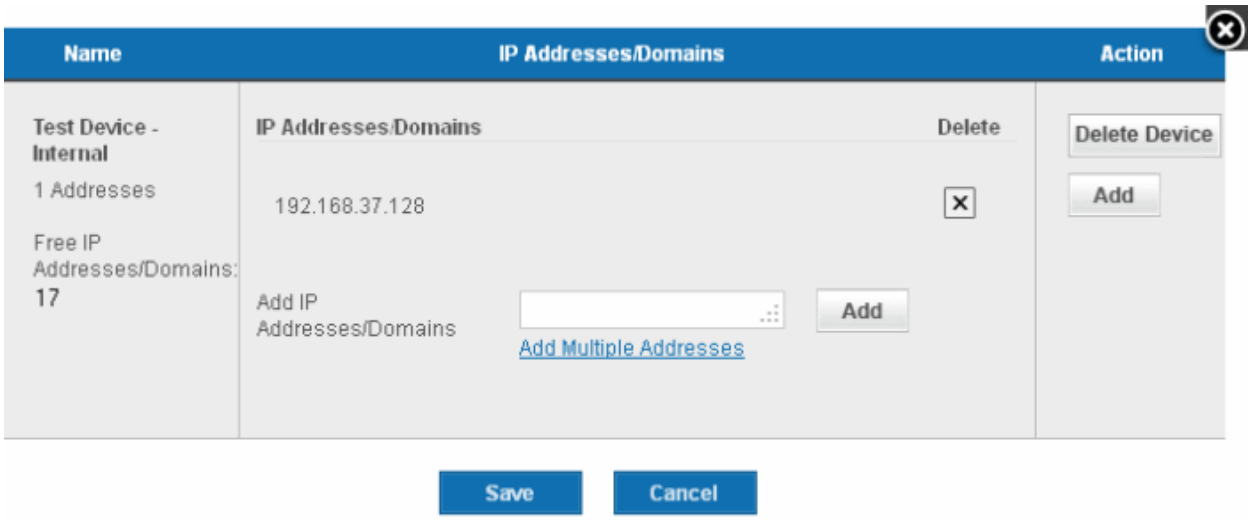
The 'Device List' area of the Web Inspector PCI interface provides the administrator with the possibility to the full complex of device management. From here administrator can edit a device's details, delete a device, move a domain to another device or remove a domain from a device.

To access the interface for device management, click the edit button beneath the device as shown below.



To add additional IPs

1. Open Edit Interface as explained **above**.



2. Enter the new IP addresses in the 'Add IPs or Domains' text box and click Add button beside the textbox.
3. Click Save.

To remove an IP from a device

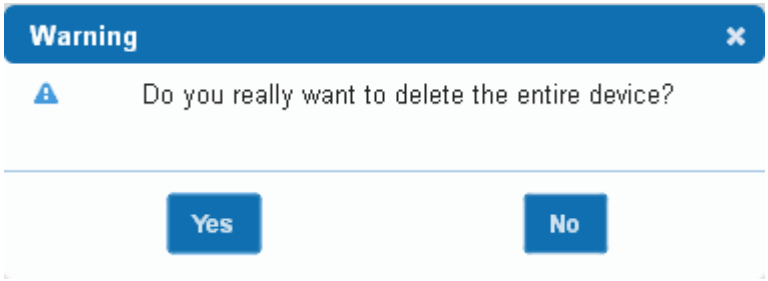
1. Open Edit Interface as explained **above**.
2. Click the 'X' button beside the IP address and click 'Save'.

To move an IP to another device

- **Remove the IP** from the device in which it is existing and **add** it to the destination device.

To remove a device

1. Open Edit Interface as explained **above**.
2. Click the 'Delete Device' button and click 'Yes' in the confirmation dialog.



2.5.4.3 How to Install the Agent

Note: The Web Inspector PCI is powered by Comodo HackerGuardian technology and uses HackerGuardian Agent software for internal scanning purposes.

The HG Agent software is available in three formats:

- **ISO image** - To create a Live, bootable CD for configuring the agent on a physical machine.
- **Zip file** - To create a Live, bootable USB stick for configuring the agent on a physical machine.
- **VMware Player** - Version of the agent designed to run under VMware Player.

Installing and configuring the agent on a physical machine requires you to create a Live CD or Live USB. Download the VMware version if you wish to run under VMware player.

To create a Live CD

- Download the iso image file comodo_1.0.iso from **http://download.comodo.com/hg/comodo_1.0.iso**
- Burn a CD with the iso file.

The Live CD is successfully created and you can install and configure the agent on any local target device in your network and added to LAN Device Management area of Web Inspector PCI. All you need to do is to boot the device through the Live CD.

To create a Live USB

- Download the zip file comodo_1.0.zip from **http://download.comodo.com/hg/comodo_1.0.zip**
- Plug in a USB memory drive (minimum 64MB, >128MB is preferred), pre-formatted with either FAT16 or FAT32 file system.

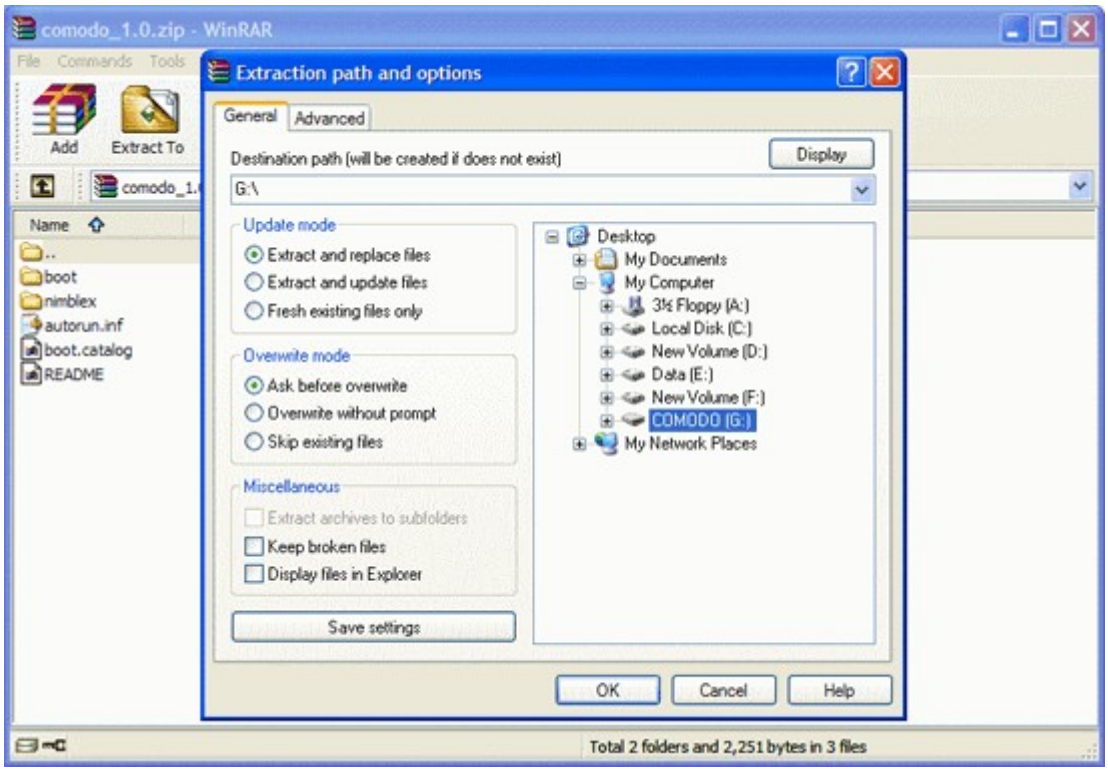
Note: USB drive must be formatted and contain only one partition with no hidden partitions.

For UNIX/Linux systems -

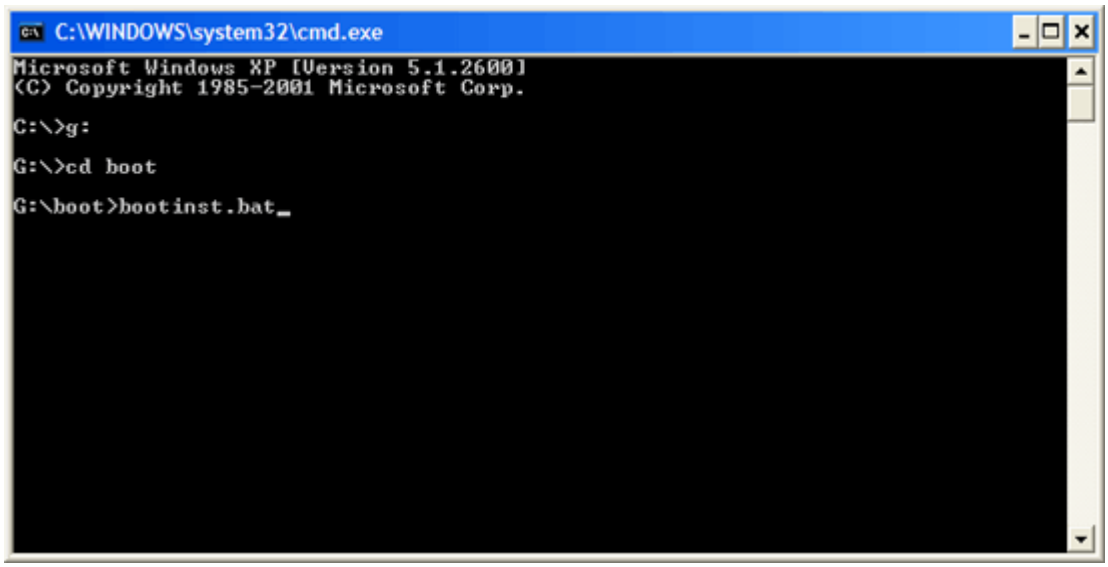
- Unzip comodo.zip on the USB drive (it must be mounted somewhere like /mnt/usb, ex: mount /dev/sdb1 /mnt/usb)
- Type *cd /mnt/usb/boot && chmod* -R +x .
- Run *sh ./bootinst.sh and follow instructions*
- Type *umount /mnt/usb*

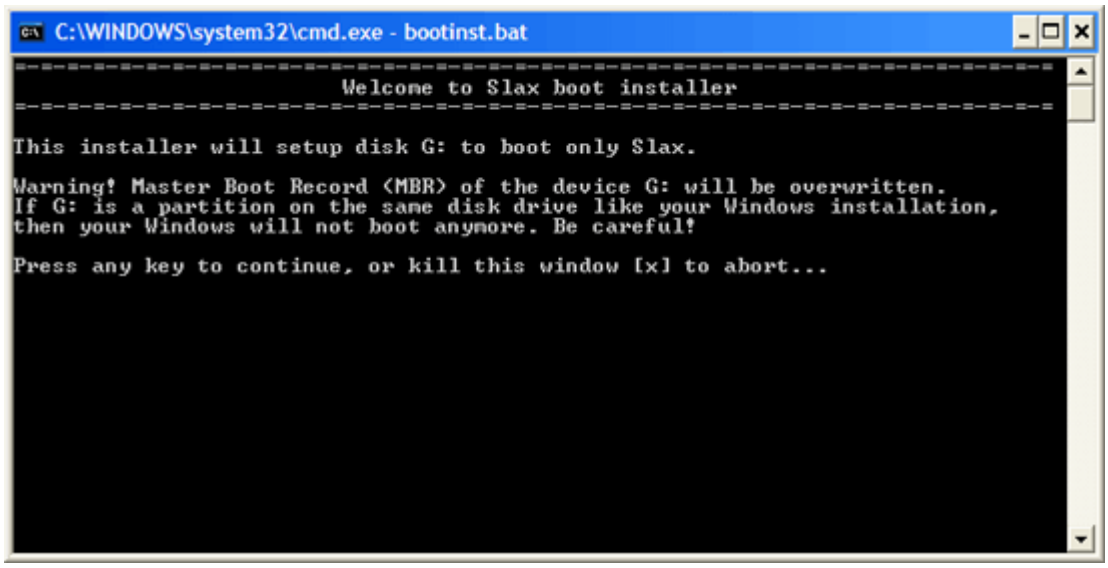
For Windows XP/2000/Vista systems -

- Unzip comodo.zip on target USB drive (it must appear as drive letter, ex: G:)

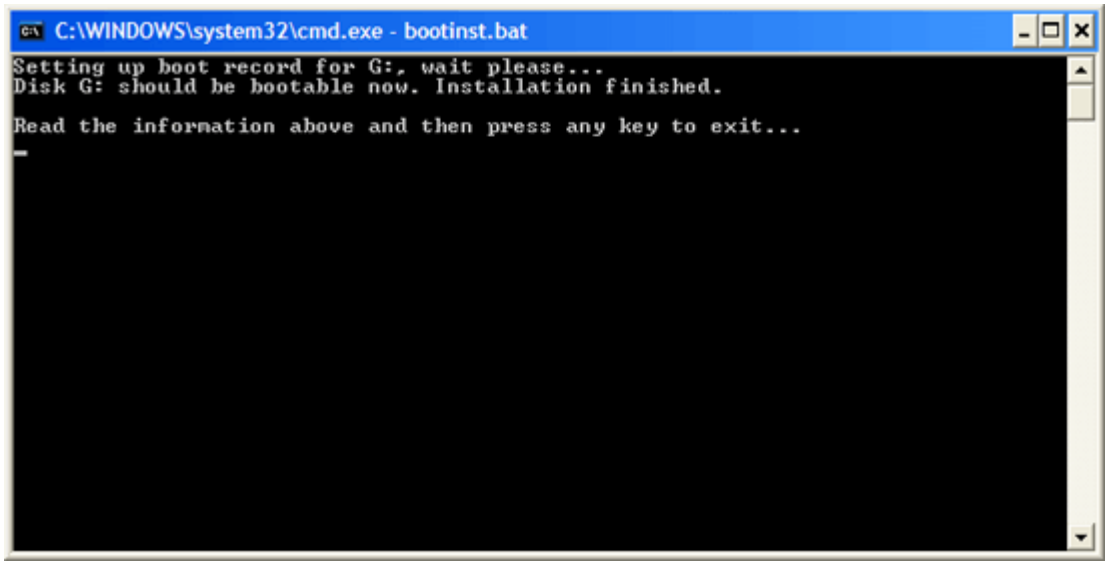


- Run *cmd.exe* and change drive letter to USB disk (ex: G:)
- Type *cd boot* in the command prompt
- Run *bootinst.bat* and follow instructions





- Read the Warning carefully. Press any key except X to continue. To cancel creating the Live USB press X.

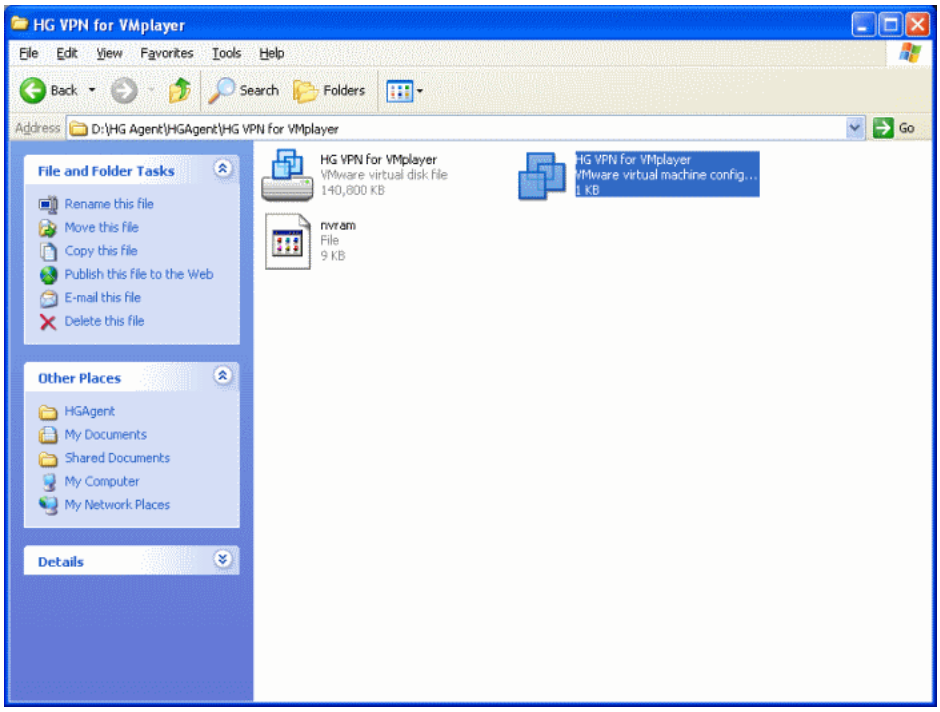


- Press any key to exit.

The Live USB is successfully created and you can install and configure the agent on any local target device in your network and added to LAN Device Management area of HackerGuardian. All you need to do is to boot the device through the Live USB.

To use the agent on a VM Machine

- Download the zip file HGAgent.zip from **http://download.comodo.com/hg/HGAgent.zip**.
- Extract the file HGAgent.zip to a folder of your choice. (e.g. C:\HGAgent)
- Start VMware Player by clicking Start > All Programs > VMware > VMware Player
- Alternatively, open the folder where you have extracted the HG Agent through Windows Explorer and double click on the file 'HG VPN for VMplayer'.



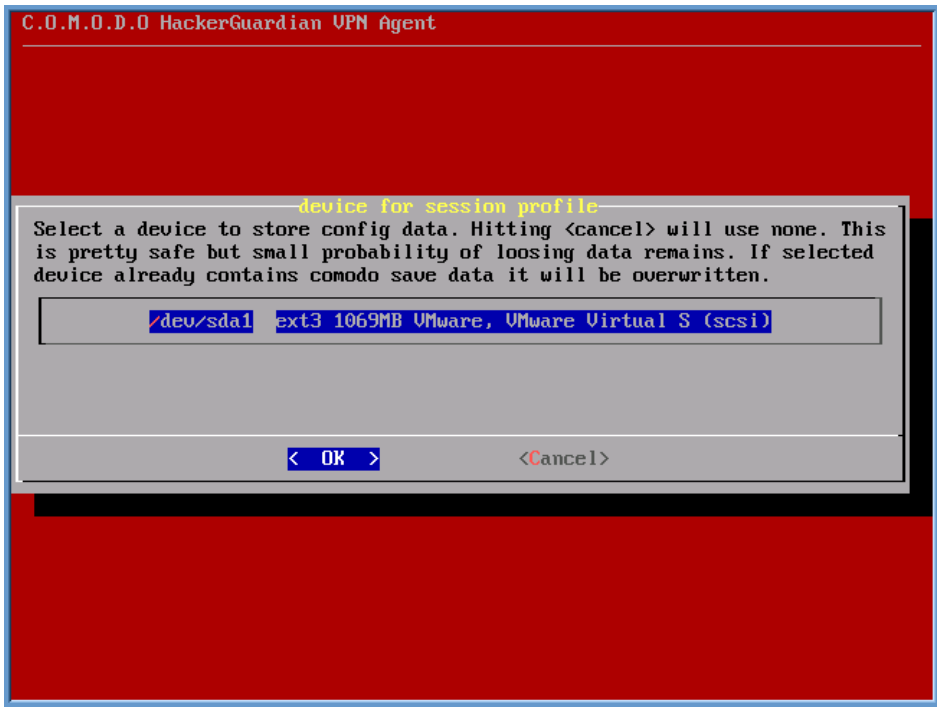
The Agent starts on the VMware Player and allows you to configure it. See **Configuring the Agent** for more details.

2.5.4.4 Configuring the Agent

To start the configuration, boot the device through the Live CD or the Live USB.

Step 1

The agent starts building a list of block devices for storing the configuration files. The agent detects hard disks, USB memory drives and/or other available block devices containing with live file system (like FAT 12, FAT16, FAT 32, VFAT, ext2/ext3, XFS, reisrfs etc.) and proposes a list of valid devices for you to choose from. Select a device to store the configuration files.

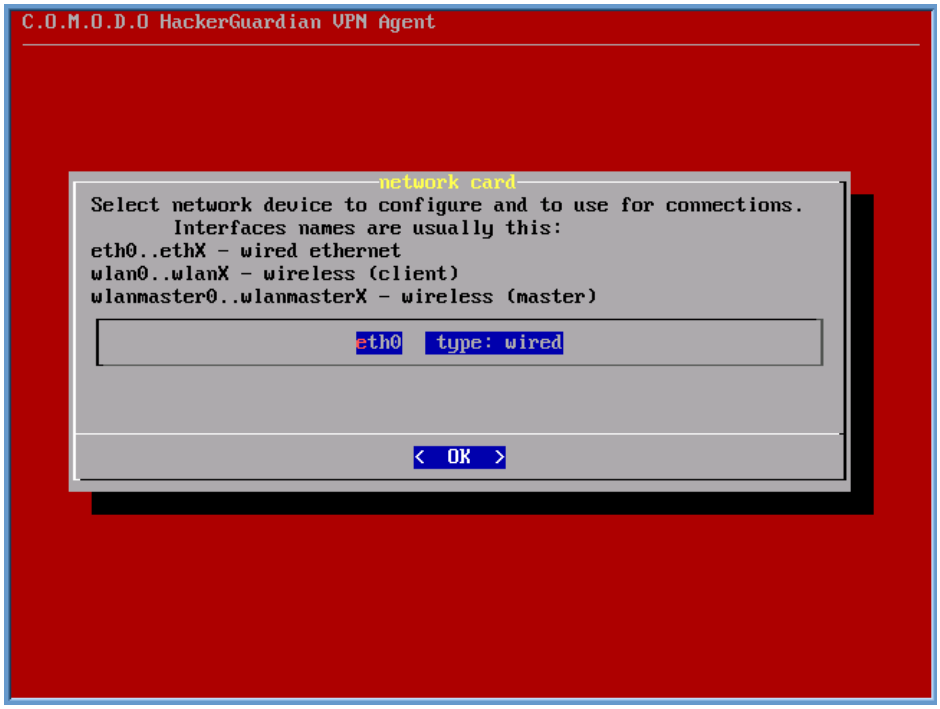


Step 2

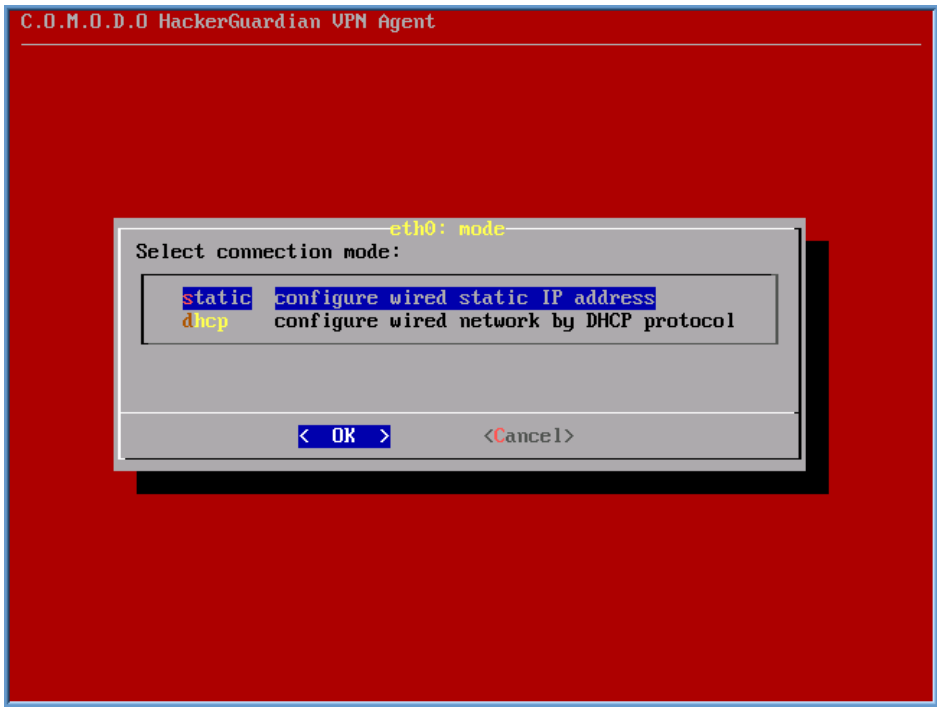
The agent asks for a short description of the saved configuration. You can give a short name/description for the configuration (Max 40 characters)

Step 3

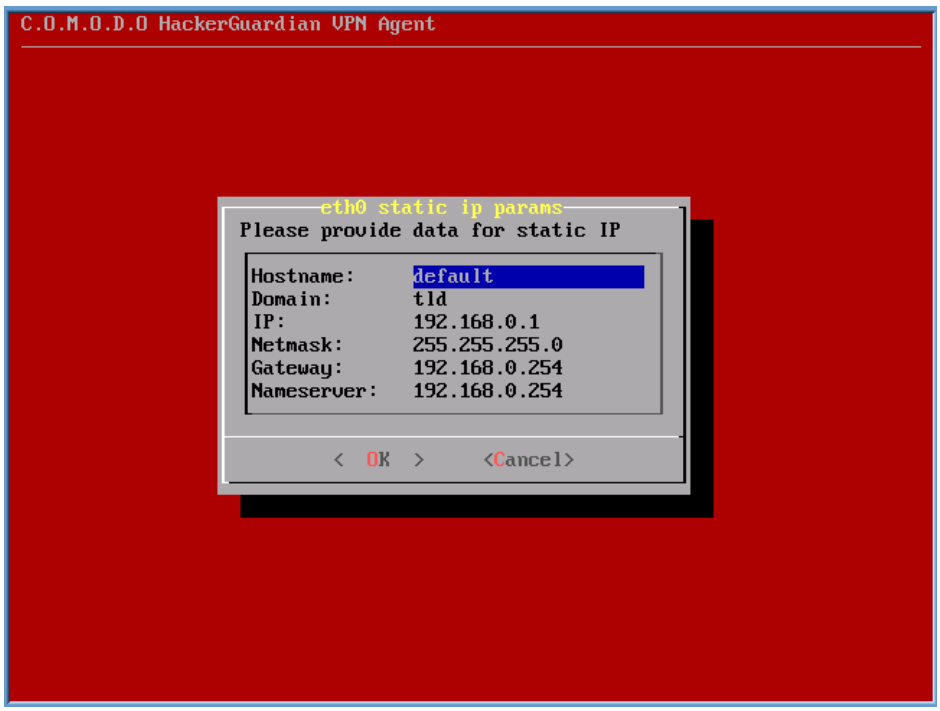
The network configuration dialog appears to specify the network configuration settings. The available network adapters are detected and displayed as a list. Only one network adapter can be used at a time. Select the network adapter through which you want the scan to be performed and select OK.



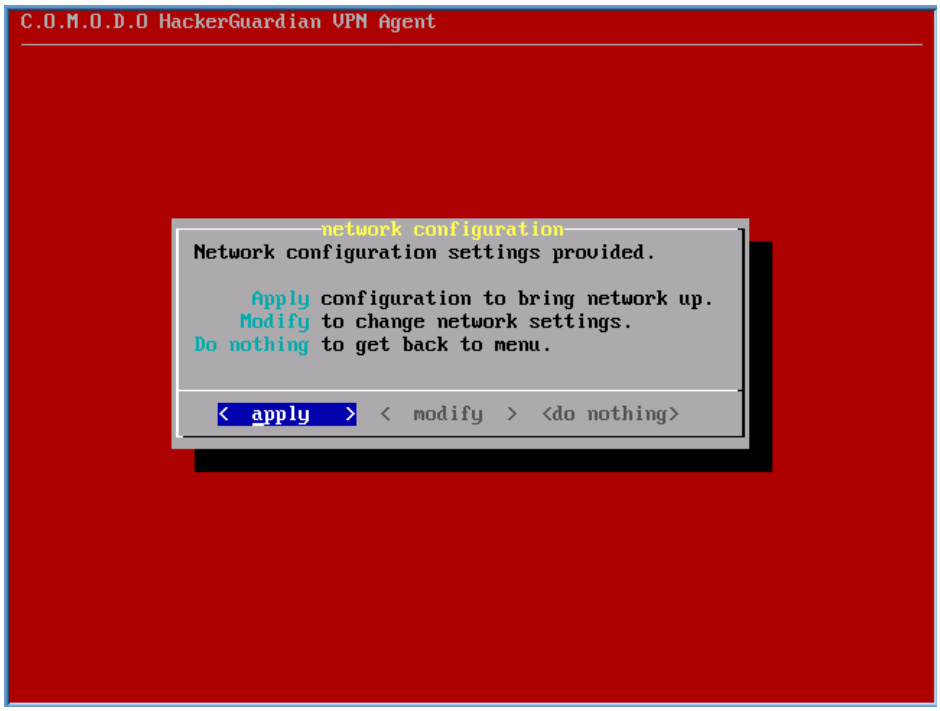
The connection mode configuration dialog appears. The available choices are Static IP address and DHCP. Select the mode in which the device is connected.



In the next dialog, set the parameters for the selected connection (The agent detects the default parameters of the device and displays them. Only change the values you wish to change and select OK. Use up and down arrow keys and the tab key for navigation).



If you are satisfied with the above configurations, select 'Apply' in the next dialog.

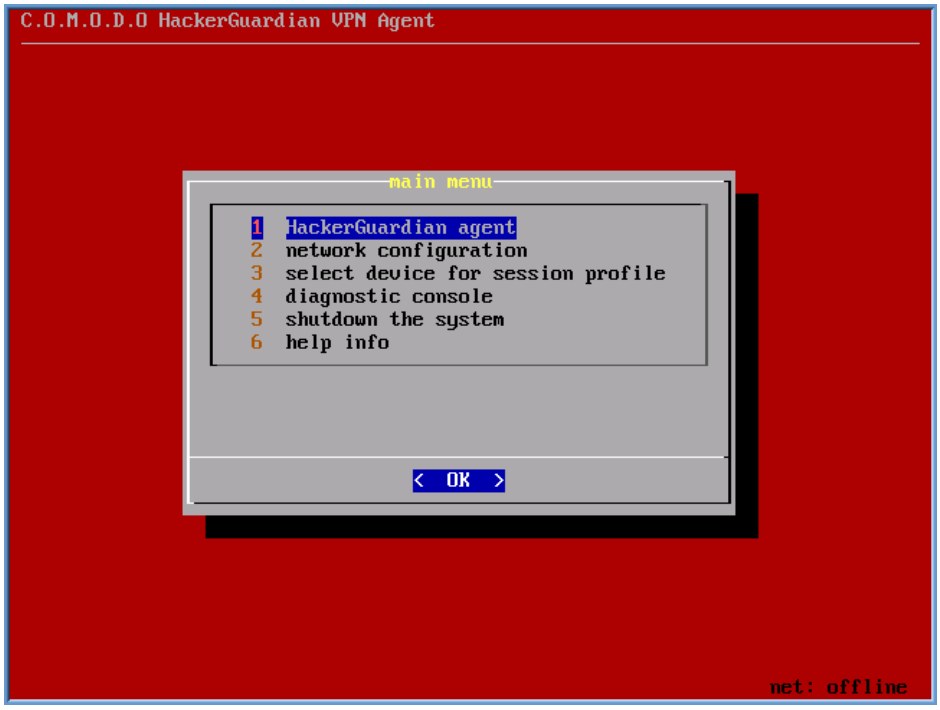


The configuration will be saved. If you want to edit the settings before saving, select Modify. The Network configuration will be restarted. If you do not want to save the settings, select Do nothing. The configuration will not be saved and the network configuration will be restarted.

The main menu will be displayed on completion of the configuration. You can modify the configuration at any time through the options in the main menu.

2.5.4.5 Using the Agent - Main Menu

The Main Menu of the HackerGuardian VPN agent contains the following options.



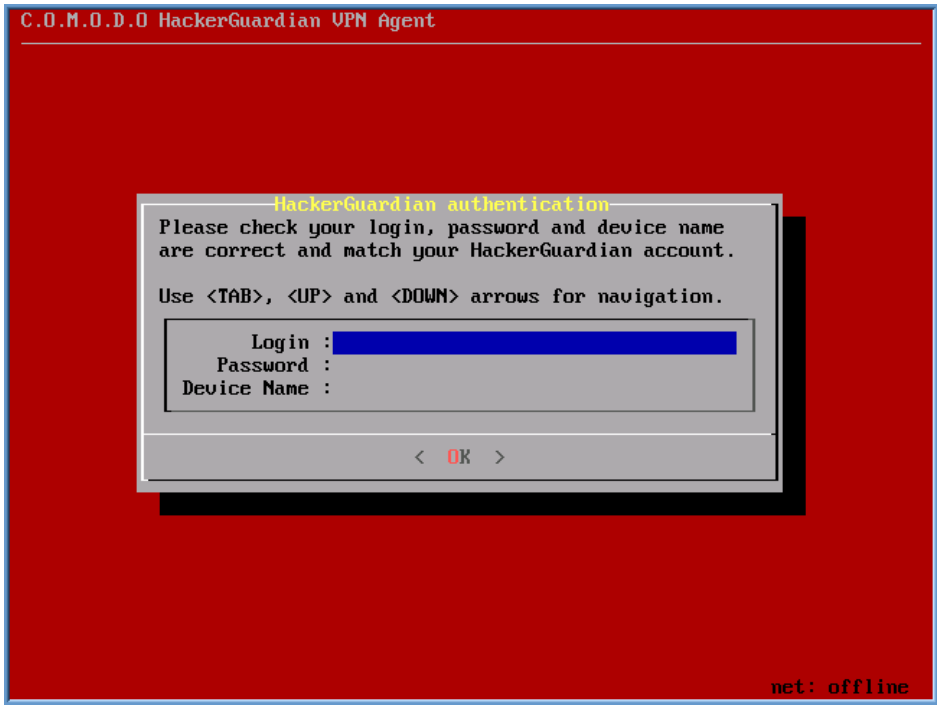
Click the following links for more details:

- **HackerGuardian agent**

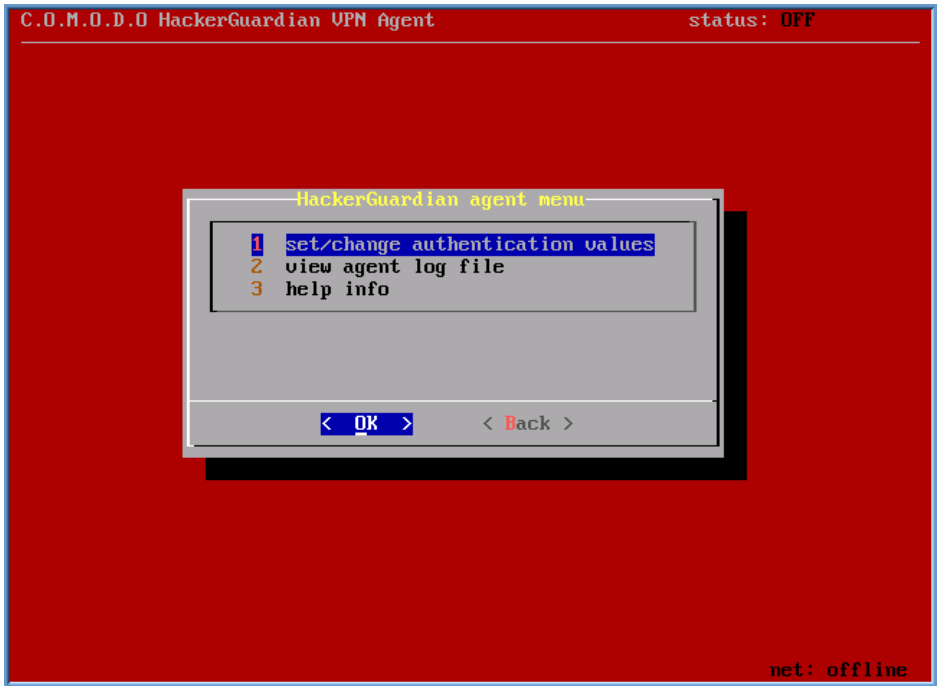
- **Network configuration**
- **Select a device for session profile**
- **Diagnostic console**
- **Shutdown System**
- **Help info**

2.5.4.5.1 HackerGuardian Agent

The HackerGuardian sub-menu contains the options for configuring various HackerGuardian VPN authentication settings. Selecting the HackerGuardian agent first opens a Login dialog.



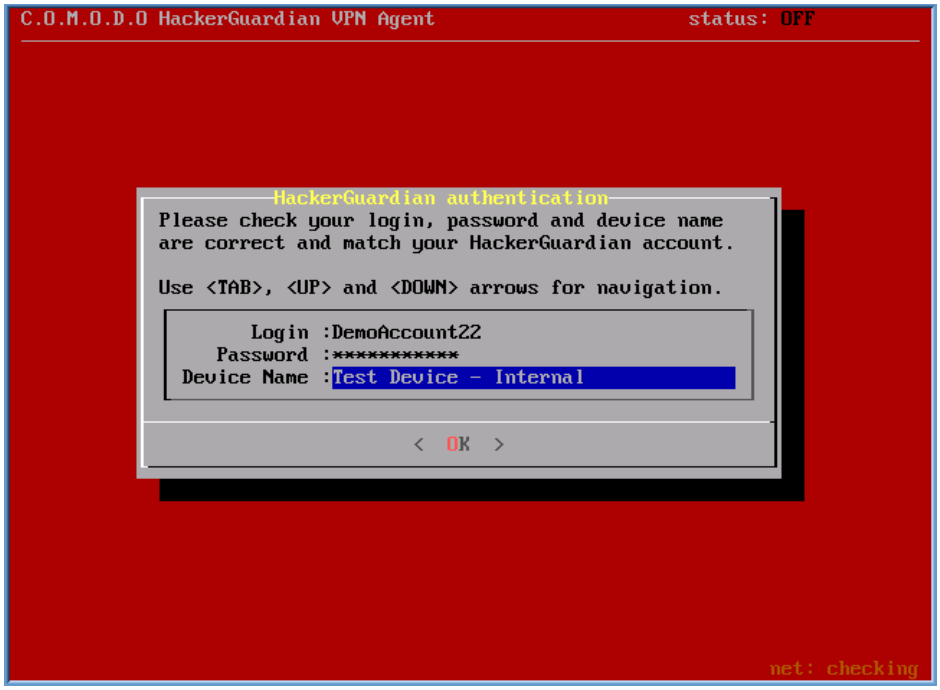
- Type your Login name, Password and the device name as you registered in the HackerGuardian website.



The options available are:

- **Set/Change Authentication Values**
- **View Agent Log File**
- **Help info**

Set/Change authentication values - The VPN connection values of Login Name, Password and Device name can be changed by selecting this option. This is useful when you have configured the agent on one device and wish to quickly running the scan on another pre-registered device.



Important Note: The Device Name displayed in the agent must *exactly* match the name that you set for the target Device in the 'LAN Devices' area of your Web Inspector PCI account. Incorrect authentication settings will lead to failure of authentication and no scan will take place.

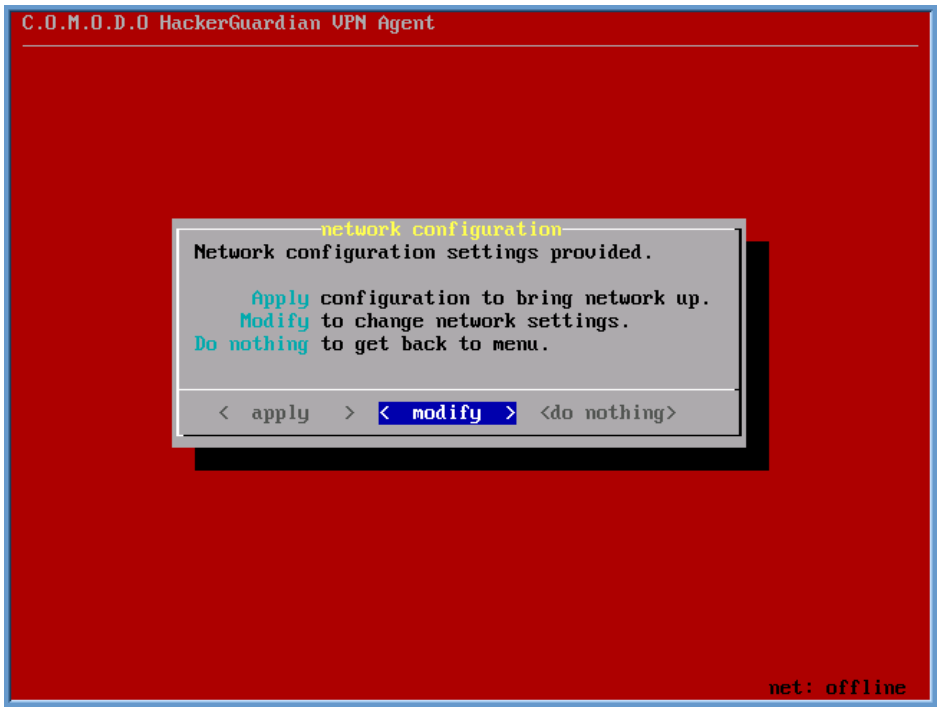
View Agent Log File - This option allows you to view the HackerGuardian agent execution progress trace, warnings or errors and diagnose connection problems.

Help info - Opens the built-in help page that give explanations on each item in the HackerGuardian Agent Menu.

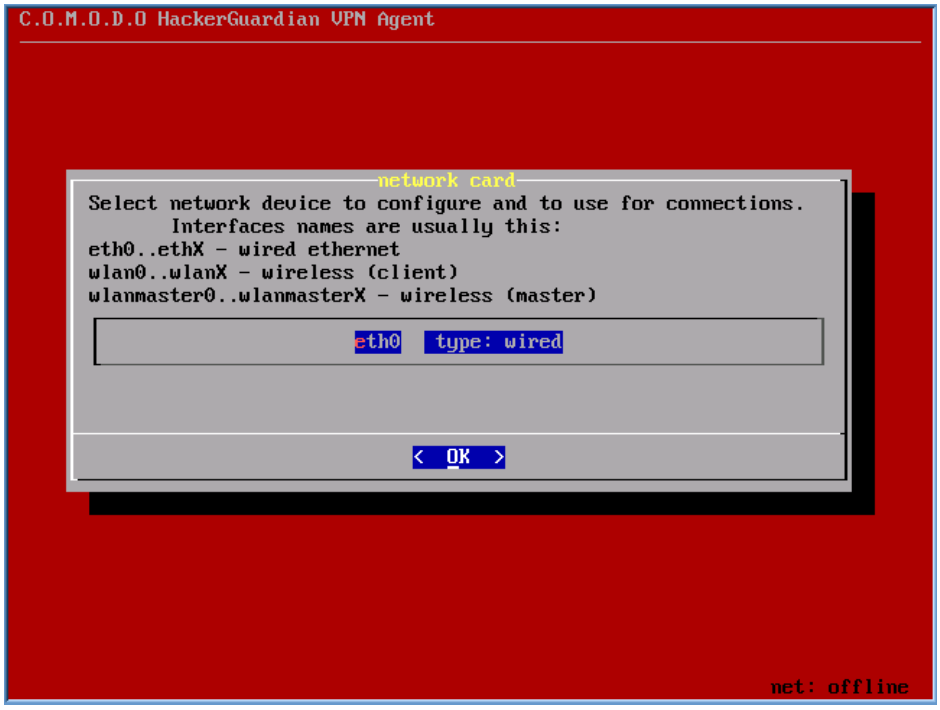
2.5.4.5.2 Network Configuration

The network configuration menu allows you to reconfigure the network settings you made during the configuration of the agent.

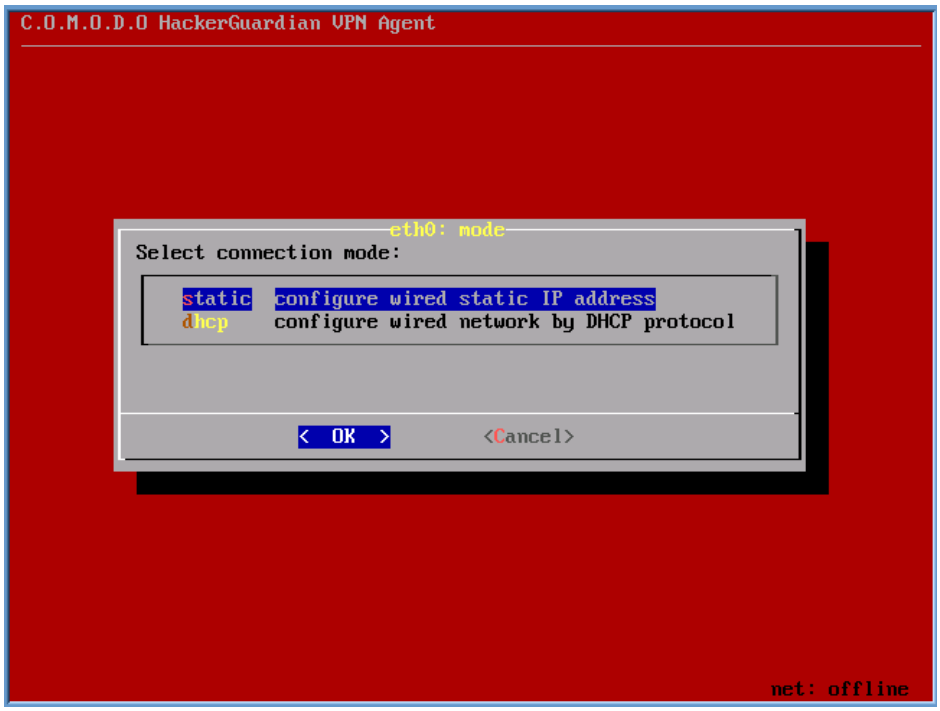
To change the existing network configuration, select 'Modify' in the network configuration dialog.



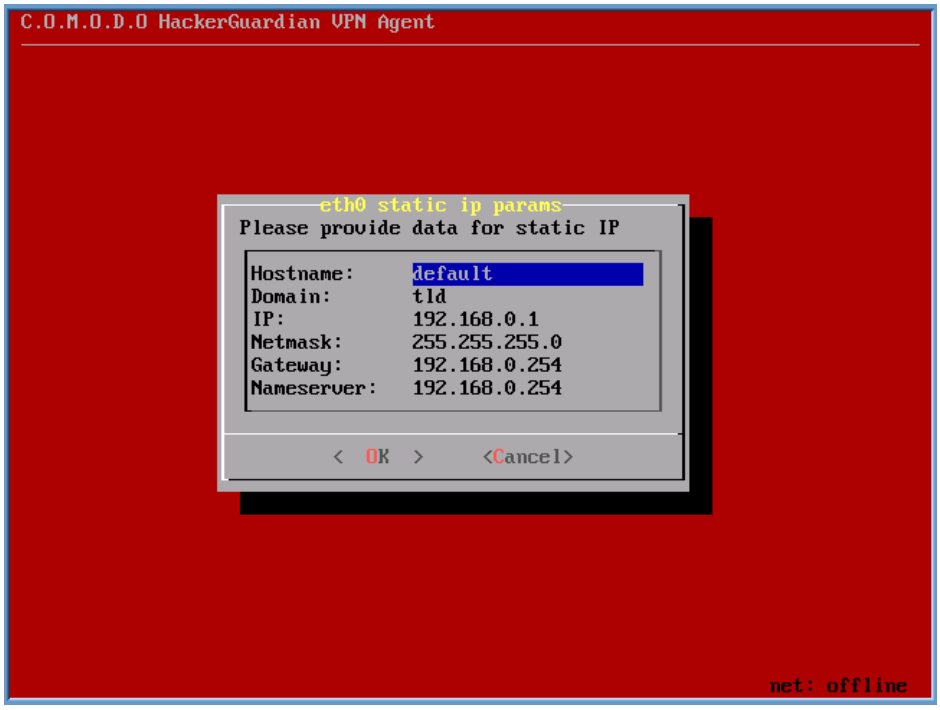
The network configuration wizard will be restarted. The available network adapters are detected and displayed as a list.



- Select the network adapter through which you want the scan to be performed and select the connection mode.



- The available connection mode choices are Static IP address and DHCP. Select the mode in which the device is connected to the network. In the next dialog, set the parameters for the connection. (The agent detects the default parameters of the device and displays them. Only change the values you wish to change and select OK. Use up and down arrow keys and the tab key for navigation).

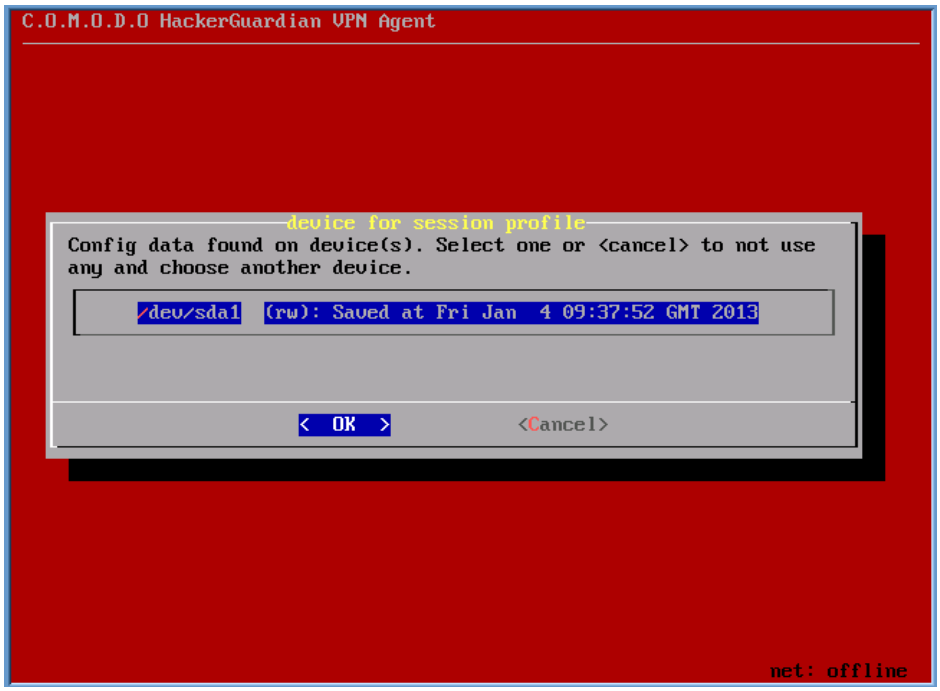


- If you are satisfied with the above configurations, select Apply in the next dialog. The previously stored parameters are overwritten with the new values. If you want to edit the settings before saving, select Modify. The Network configuration will be restarted. If you do not want to save the settings, select Do nothing. The previously stored configurations will be retained and the new configurations will not be saved.

After successfully configuring the network adapter, the network state will appear green in the lower right corner of the screen. The network state will be displayed in black if any connection problems arise indicating that the network connection setting are to be reconfigured.

2.5.4.5.3 Select a Device for Session Profile

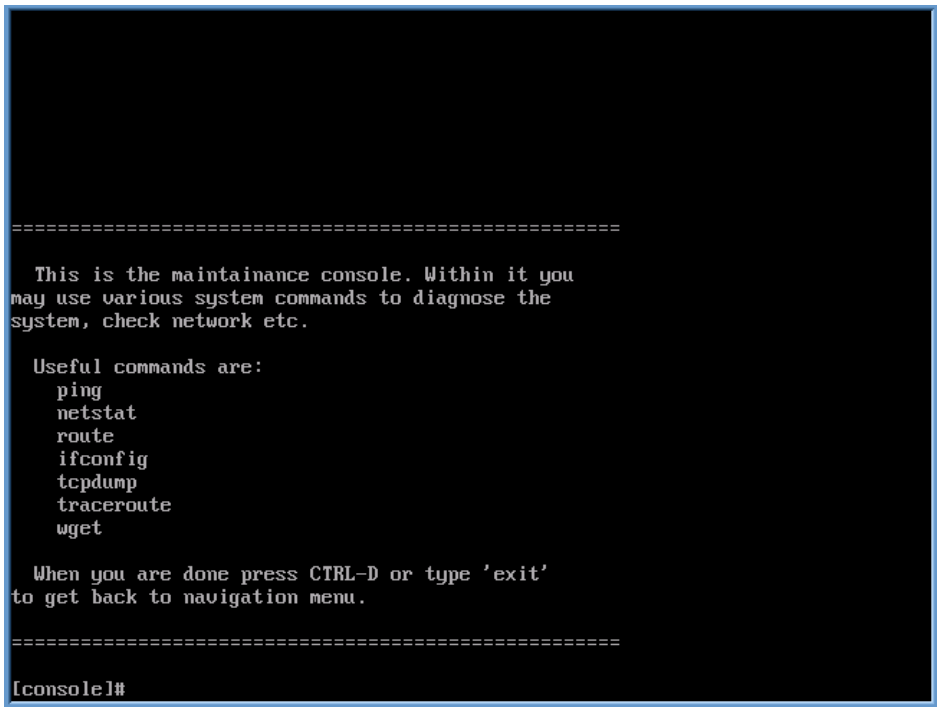
The storage device chosen previously for storing the configuration settings and the session profiles can be changed/configured by choosing this menu. Selecting this menu again starts building a list of available block devices for storing the configuration.



- Select and configure a storage device to use as a permanent storage for Live CD runtime configuration files. This is useful when you plan to boot and run the Live CD more than once with the same network settings and other configurations and do not want to reconfigure every time. The agent detects hard disks, USB memory drives and/or other available block devices containing with live file system (like FAT 12, FAT16, FAT 32, VFAT, ext2/ext3, XFS, reisrfs etc.) and proposes a list of valid devices for you to choose from. The selected device will then be used to store the configuration files by creating a special directory. The stored configuration will be automatically detected and reused every time the scanning is run. You can cancel the device selection if you do not want to store the configuration files.

2.5.4.5.4 Diagnostic Console

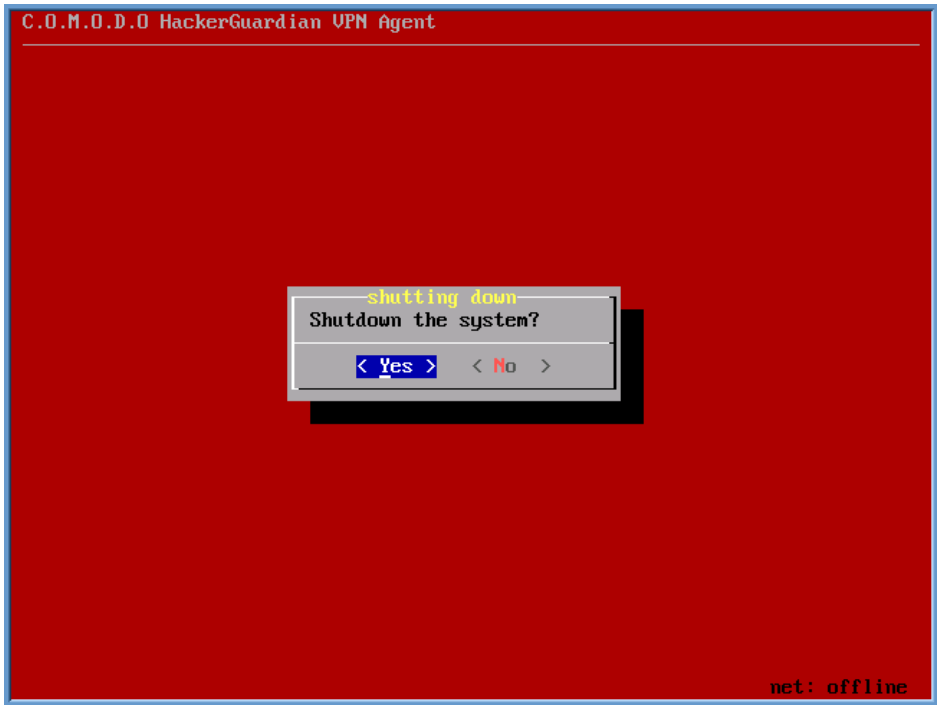
The Diagnostic Console is intended for advanced users.



The menu contains various tools to diagnose the problems if the agent is not running properly. The console can be opened any time as required and it will not interfere the agent's normal operation.

2.5.4.5.5 Shutdown System

Selecting this option will shut down the system.

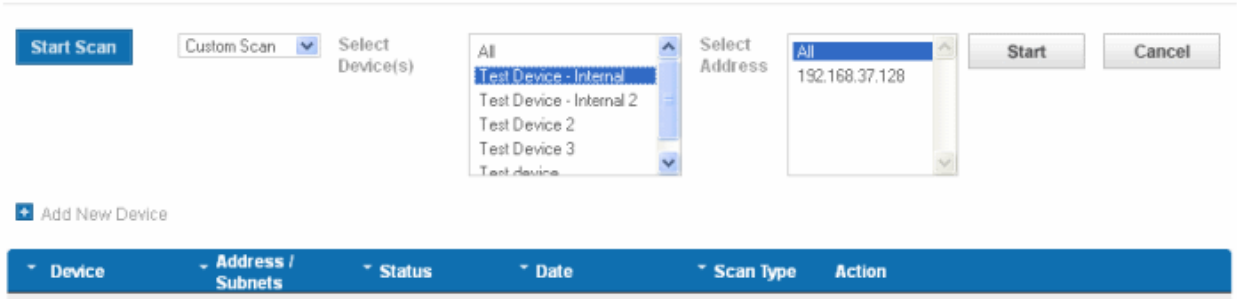


Note: The run-time settings are automatically saved in the configured storage device, so no extra action is needed for this.

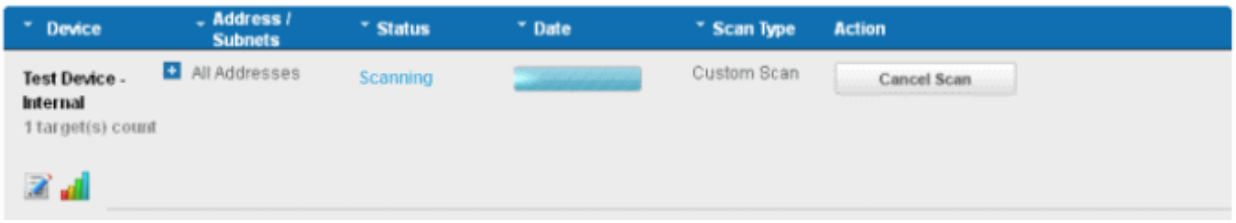
2.5.4.6 Start Device Scanning

1. Login into Web Inspector PCI online interface and click 'Start Scan' button in the 'Overview' area as shown below.

The scan configuration options will be displayed.



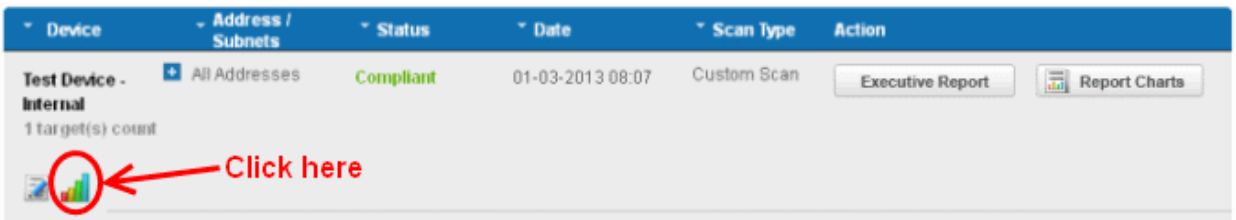
2. Select 'Custom Scan' from the scan type drop-down menu.
3. Select the device to be scanned in the next box. If you want to run the scan for all the devices at once, select 'All'
4. Select the IPs in the next box. If you want to run the scan for all the IPs in the selected device at once, select 'All'.
5. Click 'Start'



Tip: If you want to run the scan simultaneously on multiple devices, you can start scanning on the next device by following the same procedure when the scan in running in one device. Also, you can terminate the scan at any moment by clicking 'Cancel Scan' button.

2.5.4.7 Viewing a Dashboard Summary of Scan Results

On completion of scan, a dashboard summary of the results will be displayed in the 'Overview' area. If you want to switch to the scan results of other devices, click the bar-graph button beneath the device name as shown below.



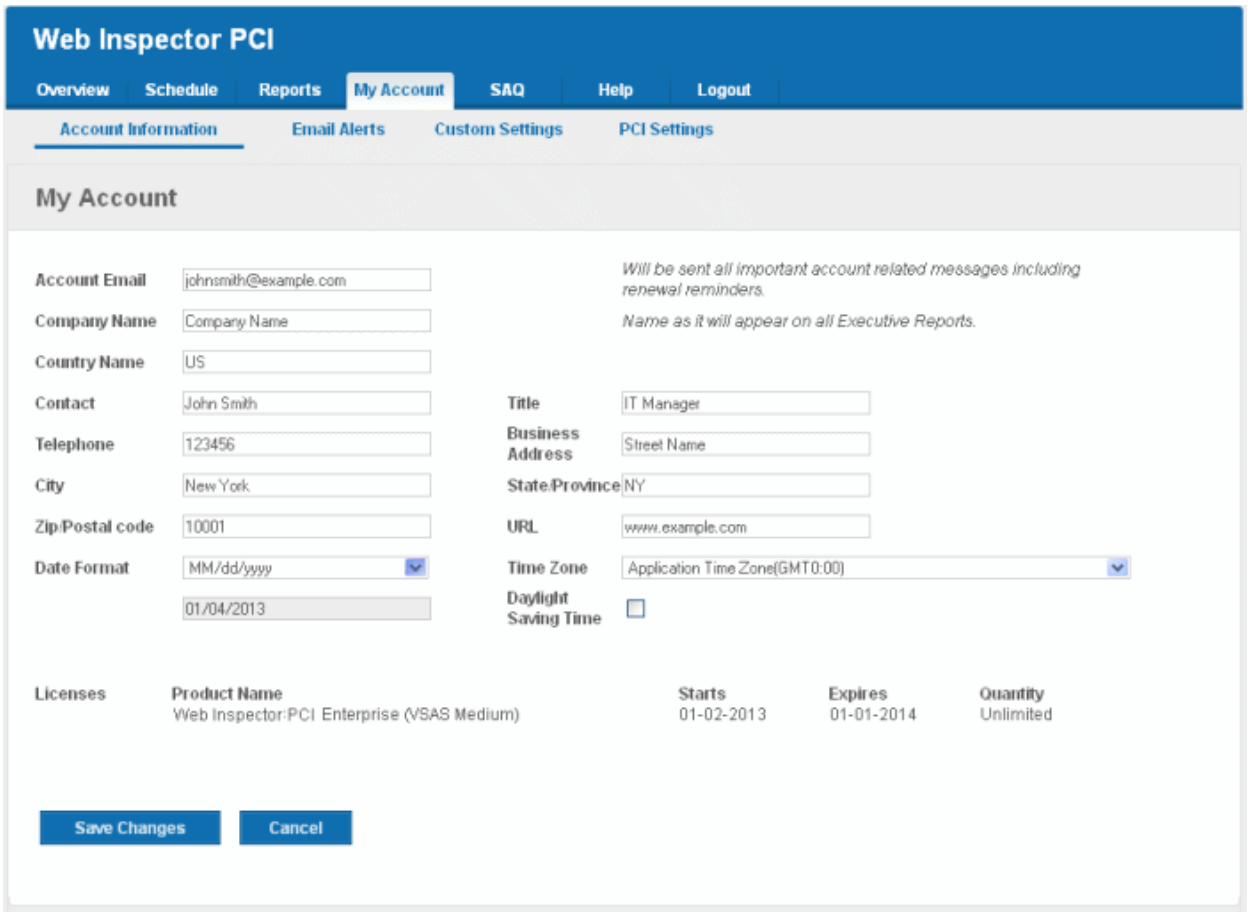
2.5.4.8 View Reports and Statistics

- Click the 'Executive Report' button beside the device name to view the Executive Scan Report
- Click the 'Charts' button next to any device row to view statistics and graphical summaries of scan results and vulnerabilities
- Click the 'Vulnerability Report' button beside a device's IP/domain name (displayed by clicking the '+' button) to view your vulnerability report.

After a successful PCI scan, you can also download a report pack which contains official documentation that can be sent to your acquiring bank. Refer to **Web Inspector PCI Reports** for more details.

2.5.5 Account Preferences and Scan Settings

The 'My Accounts' area of the Web Inspector PCI interface displays your account details, license information, and your email alert settings, and also allows you to change them if required. It also enables you to configure the general scanning options, the HackerGuardian plug-ins to be deployed during scanning and PCI scan options like configuring start url and hidden urls of your website.



This area contains four tabs.

My Account - Enables the Administrator to view/modify the account related information, view License information and configure email alert options.

Email Alerts - Enables the Administrator to configure email alert options.

Custom Settings - Enables the Administrator to configure general scanning options and to select vulnerability plug-ins to be deployed during the scans.

PCI Settings - Enables the Administrator to configure the start url, from where Web Inspector PCI has to start scanning all the

webpages/microsites of the website. The Administrator can also specify the hidden urls in the website to be scanned.

2.5.5.1 My Account Area

To access the My Accounts area

1. Switch to 'My Accounts' area of the Web Inspector PCI interface.
2. By default, the 'Account Information' screen will be displayed.

This interface allows you to:

- **View/Modify your Account information provided while creating your account**;
- **View your License information**.

View/Modify Your Account Information

Account Email - Displays the email address of the subscriber of the Web Inspector PCI service. All the account related messages and reminders for renewals will be sent to this email address.

Company Name - Displays the name of the Organization/Company attached to the account.

Country Name - Displays the name of the Country of the Organization/Company.

Contact - Displays the name of the Administrator/Contact person of the Organization/Company, responsible for subscription of Web Inspector PCI service.

Title - Displays the position/job title of the Administrator/Contact person.

Telephone - Displays the telephone number of the Administrator/Contact person.

Business Address - Displays the address of the Organization/Company.

City - Displays the city of the Organization/Company.

State/Province - Displays the State/Province of the Organization/Company.

Zip/Postal code - Displays the Zip/Postal code.

URL - Displays the url of Organization/Company's website.

Date Format - Allows you to change / select the date format.

Time Zone - Allows you to change / select the time zone.

Daylight Saving Time - When this option is selected, the time stamp in reports will be based on DST of the country from where you are using the application.

The administrator can enter/change the above details by deleting the old information and entering the new information.

View License Information

Licenses - Displays a list of Web Inspector licenses purchased so far. The following table provides the description of columns in this area.

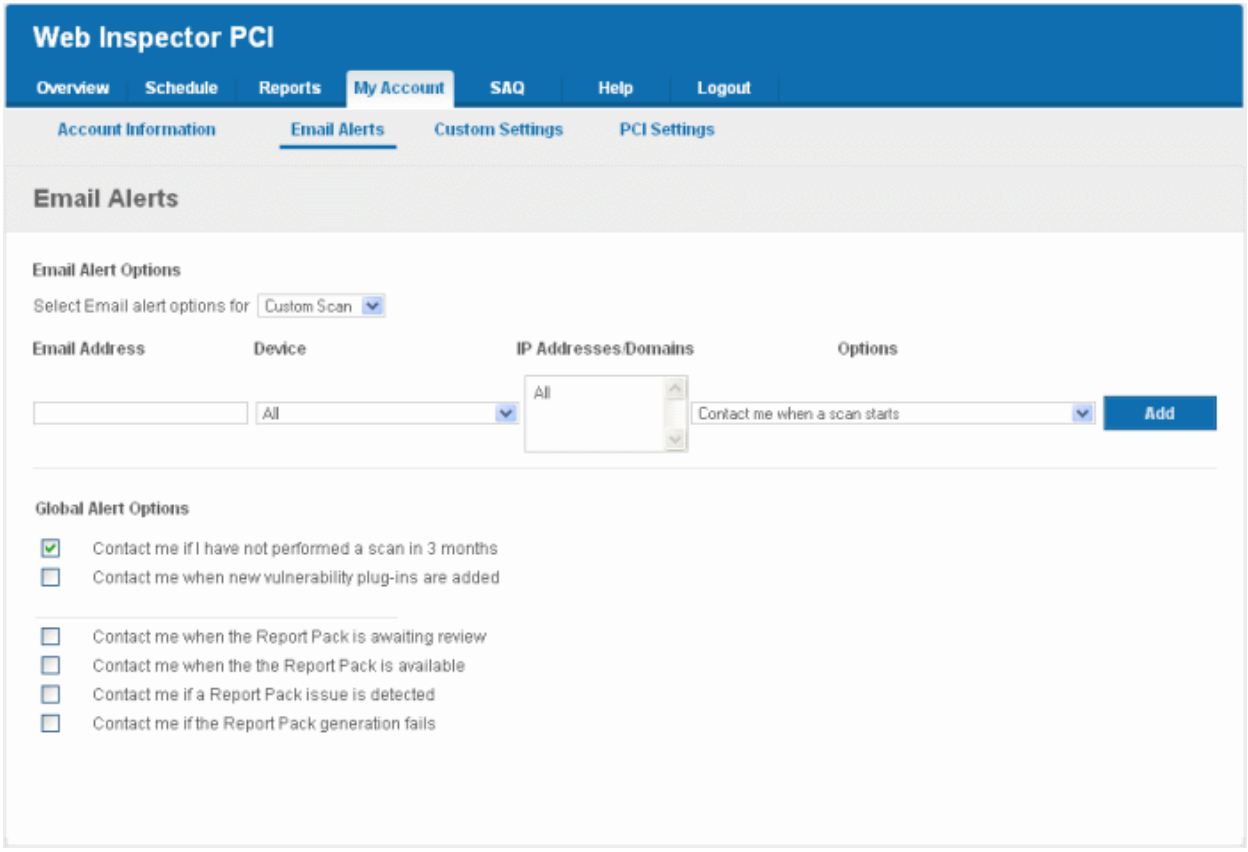
Column	Description
Product Name	The name of the Web Inspector / HackerGuardian service subscribed
Starts	The commencement date of the service
Expires	The expiry date of the license
Quantity	The total number of IPs/Domains for which the service is subscribed

2.5.5.2 Configure Email Alert and Global Alert Options

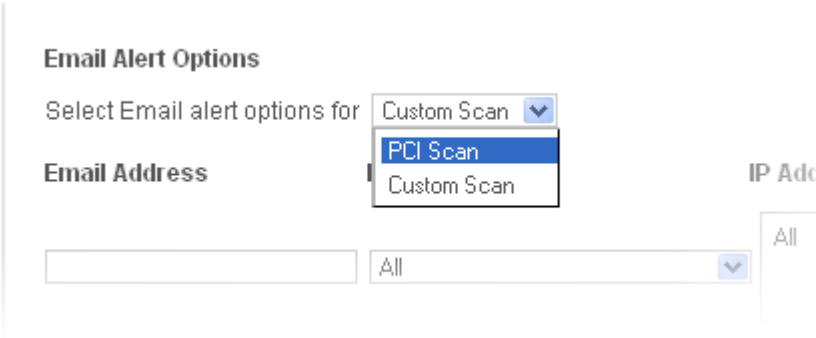
Web Inspector PCI sends automated email notifications to administrators upon events like the commencement of a manual or scheduled scan, the results of a scan and the failure of a scan. You can set your preferences for receiving the emails as you wish.

To configure email alert options

1. Switch to 'My Accounts' area of the Web Inspector PCI interface.
2. Click the 'Email Alerts' link in the 'My Accounts' area.



3. Select the scan type for which you wish to receive the email notification from the drop-down box beside 'Select Email alert options for'.



4. Select the preferences as given in the table below:

Option	Description
Email Address	Enter the email address to which you wish to receive the scan alert message in the text box below 'Email Address'. This address can be different from the Account Email and can belong to the administrator for the specific device/domain.

Device	Select the Device for which you wish to receive the scan alert message from the drop-down box below 'Device'. If you wish to have the alert message for all the devices, select 'All'.
IP Addresses	Select the IPs/Domains pertaining to the device selected, for which you wish to receive the scan alert message from the text box below 'IP Addresses'. If you wish to have the alert message for all the IPs/Domains, select 'All'.
Options	Select the event for which you wish to have email notification from the drop-down box below 'Options'.

5. Click 'Add'. The entry will be added to the list under Email Alert Options.
6. Repeat the procedure for setting email alerts for different types of scans and different devices.

- To remove an Email Alert entry, simply click the link Remove in the entry as shown below.

Global Alert Options

- **Contact me if I have not performed a scan in 3 months** - Selecting this option instructs Web Inspector PCI to send a remainder message for an on-demand scan to the Account Email address if the administrator has missed to perform a scan for three months.
- **Contact me when new vulnerability plug-in are added** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever a new vulnerability plug-in is added to Web Inspector PCI, enabling the Administrator to deploy the plug-in in future scans.
- **Contact me when the Report Pack is awaiting review** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report is under review by a PCI CSS approved staff of Comodo. The Report will be available for download upon completion of the Review and approval by the Comodo staff. Refer to **Downloading Report Pack** for more details.
- **Contact me when the Report Pack is available** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report is ready for download after review by a PCI CSS approved staff of Comodo. Refer to **Downloading Report Pack** for more details.
- **Contact me if a Report Pack issue is detected** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area, Report has been reviewed by a PCI CSS approved staff of Comodo and an issue has been detected in the generated report. Refer to **Downloading Report Pack** for more details.
- **Contact me if a Report Pack generation fails** - Selecting this option instructs Web Inspector PCI to send a notification email to the Account Email address whenever the administrator has attempted to download the Web Inspector PCI Scan Report pack by clicking the 'Generate Report Pack' in the Reports area and the Report generation has failed for some reasons. Refer to **Downloading Report Pack** for more details.

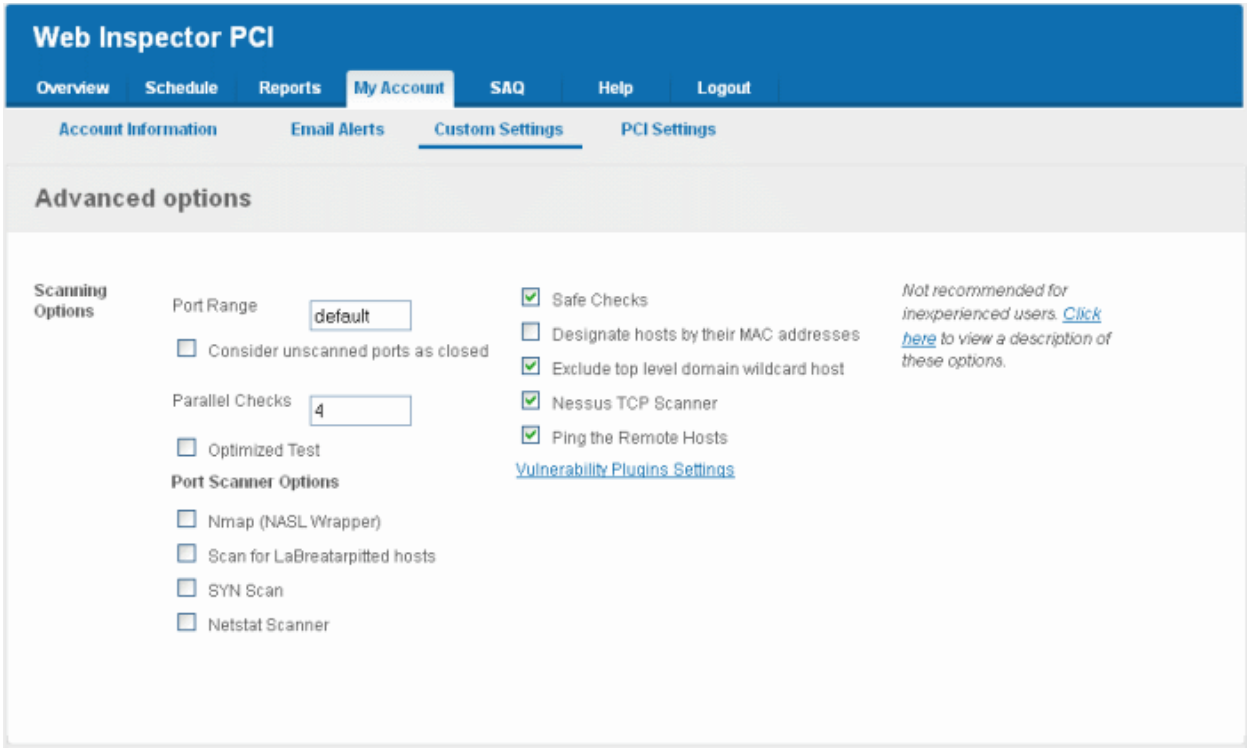
- Click 'Save Changes' for your settings to take effect.

2.5.5.3 Custom Settings

The Custom Settings area enables an administrator to configure the Web Inspector PCI scans, like specifying port range to be scanned, number of parallel checks to be done concurrently, selecting Port Scanner options, selecting plug-ins to be used for scanning and more.

To access the Advanced Options area

1. Switch to 'My Accounts' area of the Web Inspector PCI interface.
2. Click the 'Custom Settings' link in the 'My Accounts' area



This interface allows you to:

- **Configure general options pertaining to the scans**;
- **Choose which plug-ins are to be deployed during a scan**.

Configure Scan Options

This area enables administrators to configure general options pertaining to the scans. The settings chosen in this area will apply to any scan performed on selected device in the 'Overview' and 'Scheduled Scans' areas.

Scan Option	Element Type	Description
Port Range	*Text box*	Set the range of ports to be scanned. A special value of default is allowed which scans port 1-15000. To scan all TCP ports on the target host, enter '1-65535'. Enter single ports, such as "21, 23, 25" or more complex sets, such as "21, 23, 25, 1024-2048, 6000", or enter "default" to scan default ports.
Consider unscanned ports as closed	*Check box*	Ports that are not specifically scanned will be assumed as in closed state.
Parallel Checks	*Text box*	Set the maximum number of security checks that will be performed in parallel. This may be reduced to a minimum of one to reduce network load. The maximum number of parallel checks allowed is 10% of the number of IP addresses in your account and not exceeding 25. To illustrate, If your license covers 50 IP addresses, you can run scans on five IP addresses concurrently. Lesser the number of concurrent scans, faster will be the process.
Optimized Test	*Check box*	Allows the scan to be optimized by only performing tests if information previously collected indicates a test is relevant. When disabled all tests are performed.

Port Scanner Options		
Nmap (NASL Wrapper)	*Check box*	Runs nmap(1) to find open ports.
Scan for La Breatarpitted hosts	*Check box*	Performs a labrea tarpit scan, by sending a bogus ACK and ACK-windowprobe to a potential host. Also sends a TCP SYN to test for non-persisting lebrea machines.
SYN Scan	*Check box*	Performs a fast SYN port scan by computing the RTT (round trip time) of the packets moving back and forth between host and the target and using the value to quickly send SYN packets to the remote host.
Netstat Scanner	*Check box*	Runs netstat on the remote machine to find open ports.
Safe Checks	*Check box*	Some checks are potentially harmful to the target host being scanned. When this option is enabled scans which may harm the target host are not performed. This option should be disabled to perform a full scan.
Designate hosts by their MAC address	*Check box*	This option will identify hosts in the scan report by their Ethernet MAC address rather than their IP address. This is useful for networks in which DHCP is used.
Exclude top level domain wildcard hosts	*Check box*	Excludes the hosts whose addresses are returned by a wildcard on some top level domains or the web server.
Nessus TCP Scanner	*Check box*	Enables classical TCP port scanner. It shall be reasonably quick even against a firewalled target. Once a TCP connection is open, it grabs any available banner for the service identifications. TCP scanners are more intrusive than SYN (half open) scanners.
Ping the Remote Hosts	*Check box*	Pings the remote hosts through TCP connection and reports to the plug-ins knowledge base on whether the remote host is dead or alive. This sends to the remote host a packet with the flag SYN, and the host will reply with a RST or a SYNACK.

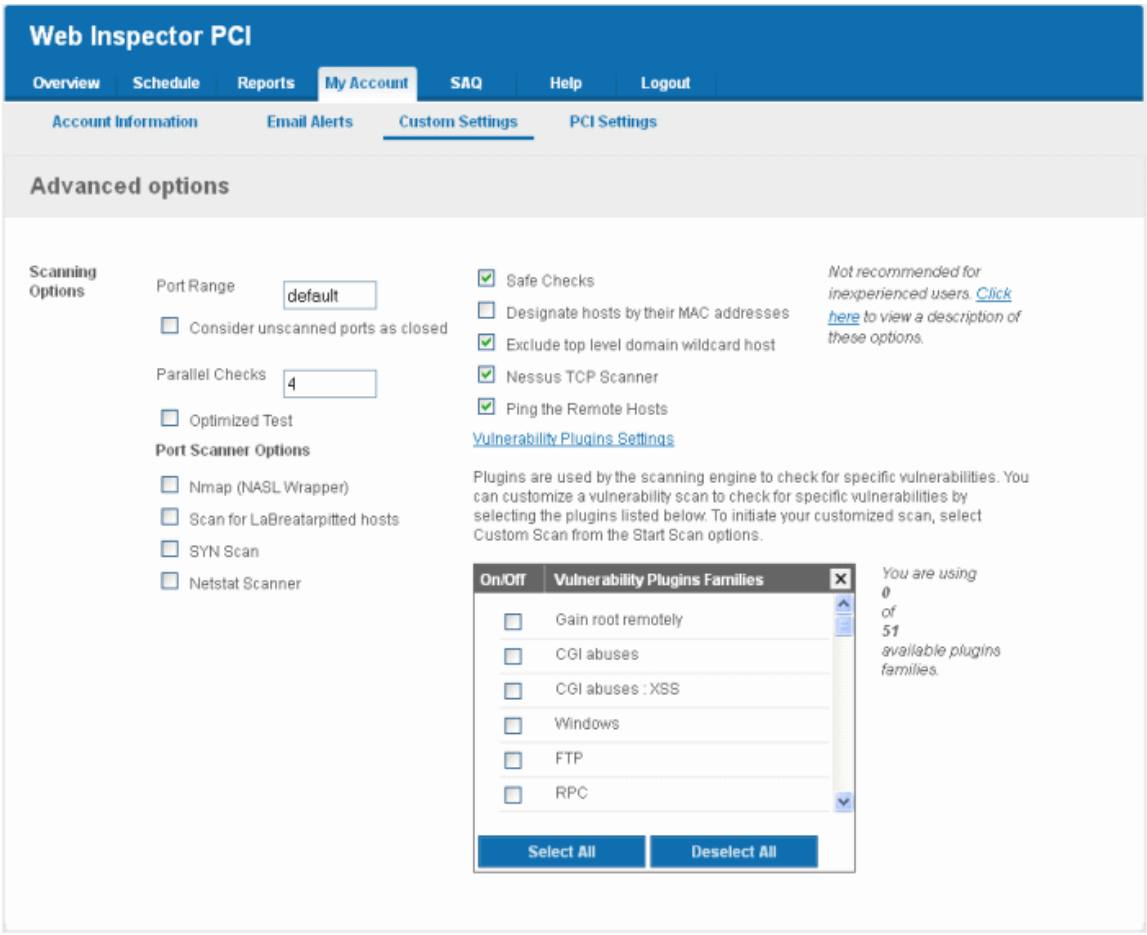
Select the Vulnerability Plug-ins to be Deployed

Each individual vulnerability test is known as a HackerGuardian 'Plug-in'. Each individual plug-in is written to test for a specific vulnerability. These can be written to actually exploit the vulnerability or just test for known vulnerable software versions.

HackerGuardian is continuously updated with the latest plug-in vulnerability tests via a direct feed available to all PCI Scanning Service subscribers - providing up to the second security against the latest vulnerabilities. At the moment there are over 30,000 with more being developed and added weekly.

This area enables the administrator to choose which plug-ins are deployed during a scan. Plug-ins can be enabled or disabled by their family type basis.

To choose the vulnerability plug-in families, click the Vulnerability Plugins Settings link from the Advanced Options interface.



- Select the plug-in families you wish to deploy.

Note: You must select Custom Scan for the chosen plug-ins to be deployed, while **starting** / **scheduling** a scan.

- Click 'Save Changes' for your settings to take effect.

2.5.5.4 PCI Settings

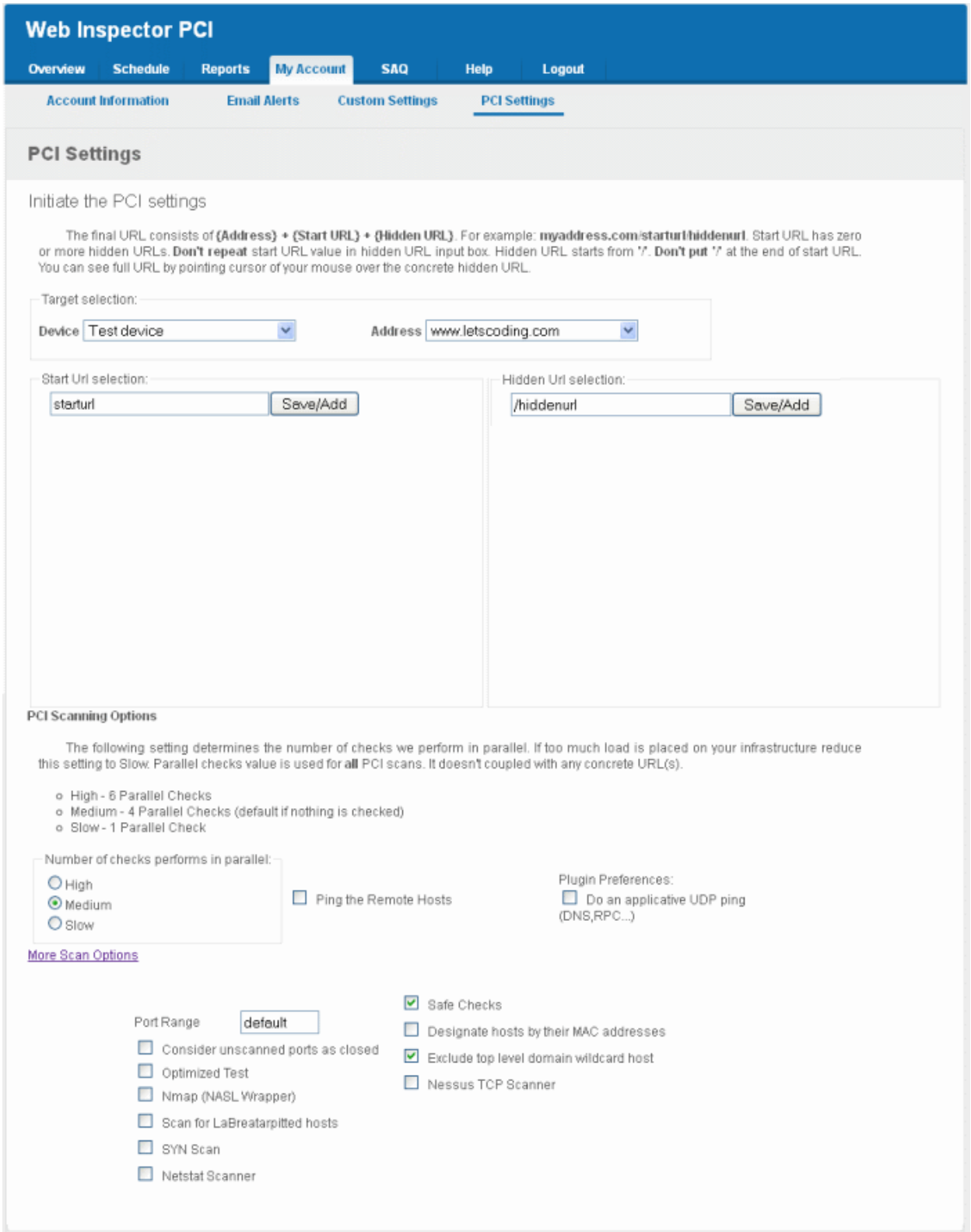
The PCI Settings area enables the administrator to customize the scan start page and to include hidden urls to be scanned for a Device and to specify the maximum number of concurrent scans.

- By default, the scanning is started from the main website page. If the index page of the website is different from the main site page, the administrator has to specify the index page url as the Start url, in order to start the scanning from the index page.

- If the website(s) contained in the Device has hidden webpages, which are not linked from any other active page. Then the crawler will not be able to find them and include them for scanning. These hidden pages are to be scanned, Web Inspector PCI allows you to manually add them to the device for scanning.

To access the PCI Settings area

1. Switch to 'My Accounts' area of the Web Inspector PCI interface.
2. Click the 'PCI Settings' link in the 'My Accounts' area



This area allows the Administrator to:

- **Specify the target urls, including hidden urls to be scanned**;
- **Specify the maximum number of allowed concurrent scans and select scan options**

Specifying Target URLs for Scanning

1. Select the Web Inspector PCI Device for which the PCI Settings are to be customized from the Device drop-down.
2. Select the IP Address/Domain contained in the Device.
3. Enter the start page or index page of selected domain in the StartUrl selection textbox and click Save/Add.

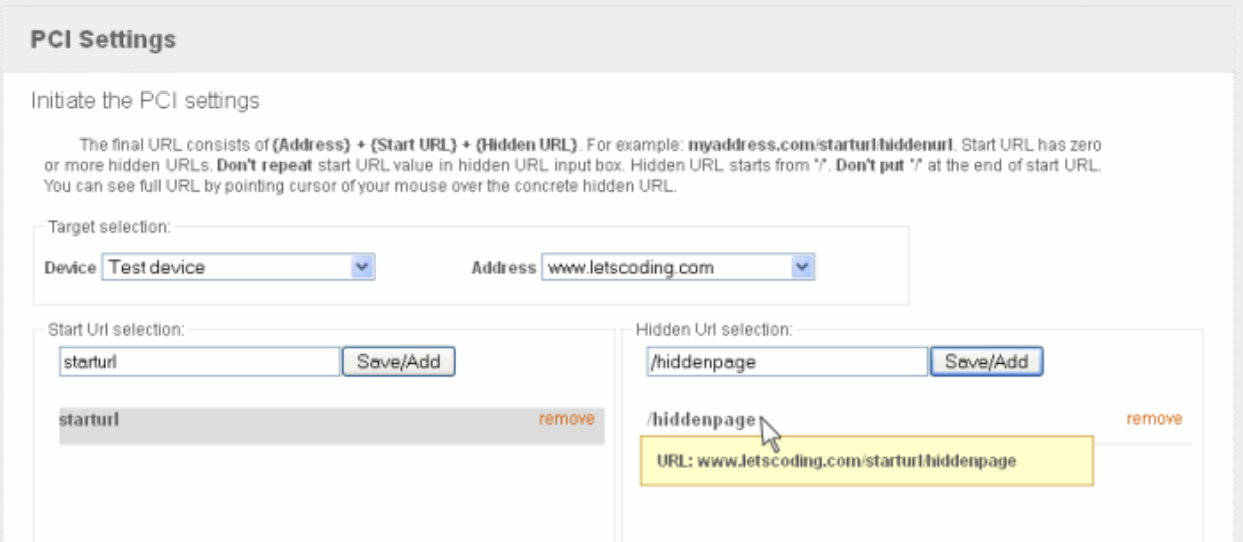
Note: The domain name need not be repeated and the startpage should not be ended with a "/" . If this field is left blank, the scanning will be started from the main website page.

For example, if the index page of the domain testdomain.com is www.testdomain.com/starturl/index.html, just enter "starturl" in the Start Url selection textbox.

4. Enter the hidden url in the Hidden Url selection text box and click Save/Add.

Note: The start page url should be mentioned for each hidden url. The hidden url should be prefixed with a "/" . The domain name and the full path need not be repeated.

For example, if the hidden page of the domain testdomain.com/starturl is www.testdomain.com/starturl/hiddenpage, just enter "/hiddenpage" in the Hidden Url selection textbox. Placing the mouse cursor over the added hidden url will display the full path.



5. Repeat the process for adding the start url and the hidden url for each hidden page in the website.

Setting Maximum Number of Allowed Concurrent Scan and Scan Options

In the PCI Scanning Options section, select the High, Medium or Slow radio buttons to specify the maximum number of concurrent scans. The number of allowed parallel checks are as given below:

High - Six Parallel Checks

Medium - Four Parallel Checks (default)

Slow - One check at a time

Tip: Lower the number of concurrent scans, faster will be the process.

Scanning Options

Click the 'More Scan Options' link to view all the scanning options available.

This area enables administrators to configure general options pertaining to the scans. The settings chosen in this area will apply to any scan performed on selected device in the 'Overview' and 'Scheduled Scans' areas.

Scan Option	Element Type	Description
Ping the Remote Hosts	*Check box*	Pings the remote hosts through TCP connection and reports to the plug-ins knowledge base on whether the remote host is dead or alive. This sends to the remote host a packet with the flag SYN, and the host will reply with a RST or a SYNACK.
Consider unscanned ports as closed	*Check box*	Ports that are not specifically scanned will be assumed as in closed state.
Do an applicative UDP ping (DNS,RPC...)	*Check box*	Performs a check if the host is up by sending a single UDP packet. The host is up if another UDP packet is returned or if an ICMP port unreachable message is returned.
Port Range	*Text box*	Set the range of ports to be scanned. A special value of default is allowed which scans port 1-15000. To scan all TCP ports on the target host, enter '1-65535'. Enter single ports, such as "21, 23, 25" or more complex sets, such as "21, 23, 25, 1024-2048, 6000", or enter "default" to scan default ports.
Optimized Test	*Check box*	Allows the scan to be optimized by only performing tests if information previously collected indicates a test is relevant. When disabled all tests are performed.
Nmap (NASL Wrapper)	*Check box*	Runs nmap(1) to find open ports.
Scan for La Breatarpitted hosts	*Check box*	Performs a labrea tarpit scan, by sending a bogus ACK and ACK-windowprobe to a potential host. Also sends a TCP SYN to test for non-persisting lebrea machines.
SYN Scan	*Check box*	Performs a fast SYN port scan by computing the RTT (round trip time) of the packets moving back and forth between host and the target and using the value to quickly send SYN packets to the remote host.
Netstat Scanner	*Check box*	Runs netstat on the remote machine to find open ports.
Safe Checks	*Check box*	Some checks are potentially harmful to the target host being scanned. When this option is enabled scans which may harm the target host are not performed. This option should be disabled to perform a full scan.
Designate hosts by their MAC address	*Check box*	This option will identify hosts in the scan report by their Ethernet MAC address rather than their IP address. This is useful for networks in which DHCP is used.
Exclude top level domain wildcard hosts	*Check box*	Excludes the hosts whose addresses are returned by a wildcard on some top level domains or the web server.
Nessus TCP Scanner	*Check box*	Enables classical TCP port scanner. It shall be reasonably quick even against a firewalled target. Once a TCP connection is open, it grabs any available banner for the service identifications. TCP scanners are more intrusive than SYN (half open) scanners.

2.5.6 Scheduled Scans

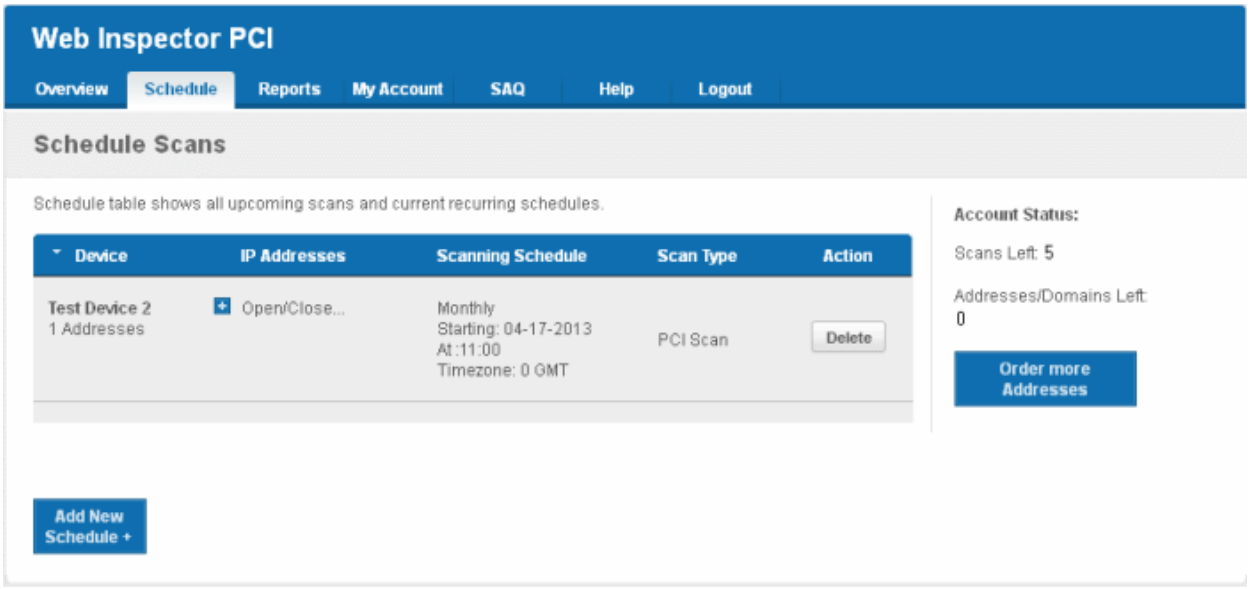
Comodo Web Inspector PCI features a highly customizable scheduler that lets you timetable scans to run at a time that suits your preference. Web Inspector PCI automatically commences the selected type of scan on the selected devices/IPs/Domains.

You can choose to run scans at a certain time on a daily, weekly, monthly or on a custom interval basis. Web Inspector PCI gives you the power to choose, allowing you to get on with more important matters with complete peace of mind.

Web Inspector PCI vulnerability scans can be scheduled to run:

- At a specific date and time;
- On a recurring basis at daily, weekly, monthly or user specified intervals.

To access the Scheduled Scan management interface, click on the 'Schedule' tab in the Navigation bar.



The 'Scheduled Scans' area displays the list of existing schedules. The following table provides description of information columns in this area.

Column	Description
Device	Displays the name of the device upon which the scan is scheduled.
IP Address	Displays all the associated domains (e.g. www.domain.com) or IP addresses that administrator specified for the device. Click the '+' button beside 'Open/Close...' to view the list of IPs and the Domains.
Scanning Schedule	Displays a summary of the scan schedule including details on recurrence period, start time etc.
Scan Type	Displays the selected scan type.
Action	Enables the Administrator to remove the schedule.

2.5.6.1 Adding a New Scan Schedule

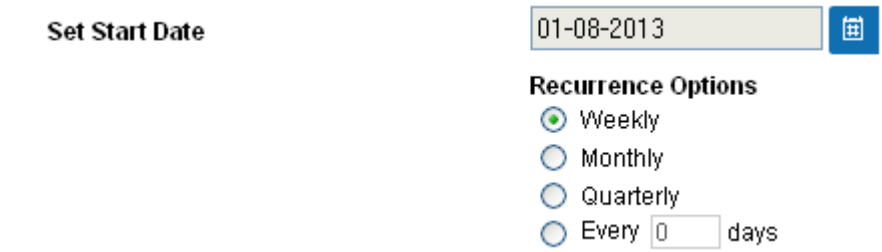
1. Click 'Add New Schedule+'. The schedule options will be displayed.
2. Select the type of scan to be run as per the schedule from the 'Select scan type' drop-down box.

3. Select the device from the 'Select Device(s)' drop-down box.

4. Select the IPs/Domain pertaining to the selected device from Select IP(s) box. If you wish to scan all the IPs/Domains, select 'All'.

5. Select the start date for the scan schedule by clicking the calendar icon beside 'Set Start Date' text box.

6. Select the recurrence period.



- *Weekly* - The scan will be performed once in a week on the specified day and time.
- *Monthly* - The scan will be performed once in a month on the specified date and time.
- *Quarterly* - The scan will be performed once in three months on the specified date and time.
- *Every N days* - Scan will be performed once for every 'n' days from the start date. For example, if you

specified 2 then the scan will be performed on alternate days.

7. Select the start time from the 'Set Start Time' drop-down combo box. The scan will be started on the set time at the scheduled dates according to your time zone set in the 'My Account' area.

8. Click 'Save' to apply your schedule.

Repeat the process for adding more schedules for running scans on other devices/IPs/Domains as per your convenience.

The scans will run on the selected device on date(s), time(s) and interval that you specified.

Notes about Scan types and Devices

- PCI Scans cannot be scheduled to run on 'Internal Devices' (devices inside your LAN devices have no external IP addresses). To scan an Internal device, you must use 'Custom Scan'
- Selecting 'PCI Scan' will launch a vulnerability scan according to PCI scanning guidelines. PCI Scan are 'predetermined' by the PCI DSS and are not user configurable. Full reports are available in the 'Reports' area.
- The composition of a 'Custom Scan' is defined by the administrator in **My Account > Custom Settings** area.

2.5.7 Web Inspector PCI Reports

At the end of each PCI/Custom scan, Web Inspector PCI produces a vulnerability report and an executive report for each IP/Domain scanned. In addition, a consolidated report for the network device scanned is also generated.

The compliance status for each device is set as **Compliant** or **Non-Compliant** based on the discovery of potential security flaws on the device/IP/Domain.

The security flaws or the vulnerabilities are rated based on their severity levels. The rating of each vulnerability is indicated by the color of title bar of the respective report. The following table shows the official PCI severity ratings.

Rating	CVSS Score	Vulnerability	Severity Level	Scan Result
Red	7.0 - 10	Security Hole	High	Fail PCI Scan
Orange	4.0 - 6.9	Security Warnings	Medium	Fail PCI Scan
Blue	0 - 3.9	Security Notes	Low	Pass PCI Scan

Based on the ratings, Web Inspector PCI categorizes the vulnerabilities as Security Holes, Security Warnings and Security Notes.

Security Holes	A vulnerability, whose severity level is more than three or 'High', is identified as a Security Hole. To pass a PCI Compliance scan, no holes are to be found during the scan. If any holes are found, the merchant or the service provider must remediate the identified problems and re-run the scan until the compliance is achieved.
Security Warnings	A vulnerability, whose severity level, is more than two or 'Medium', is indicated as a Security Warning. To pass a PCI Compliance scan, no warnings are to be found during the scan. If any warnings are found, the merchant or the service provider must remediate the identified problems and re-run the scan until the compliance is achieved.
Security Notes	A vulnerability, whose severity level, is more than one or 'Low', is indicated as a Security Note.

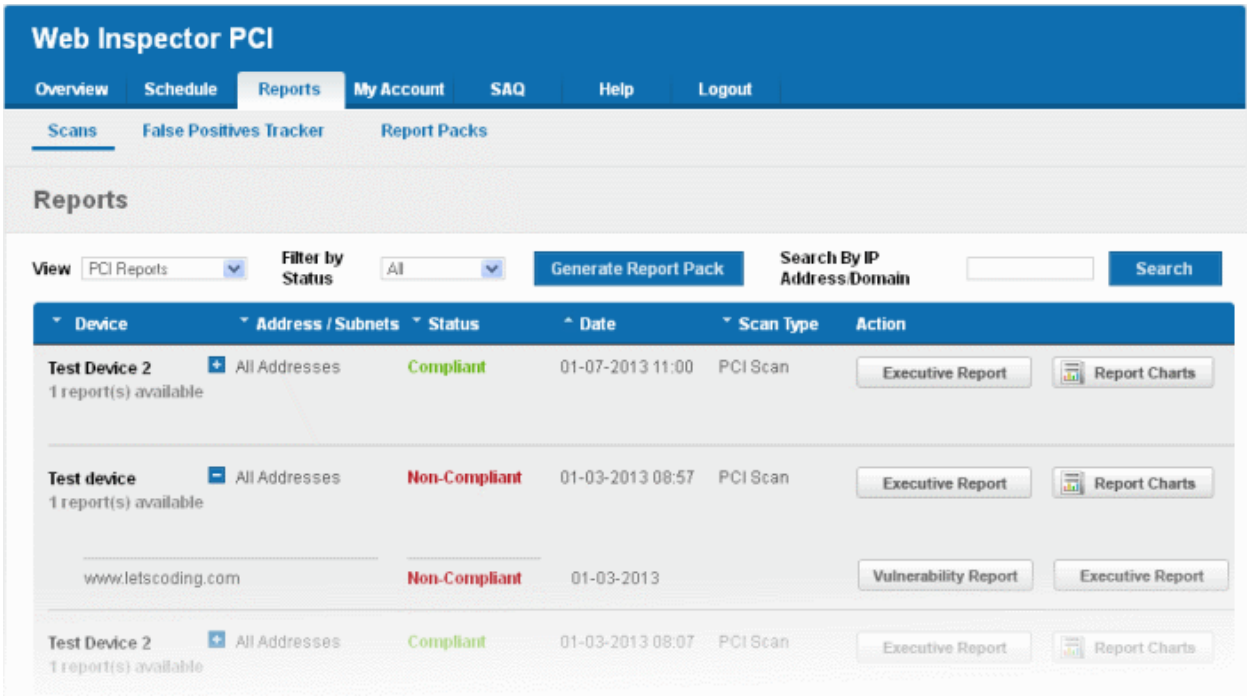
Each Web Inspector PCI report indicates the Security Holes, Security Warnings and Security Notes found on each device/IP/Domain and also provides solution for remediation.

The Scan Reports produced from the PCI scans can be assessed from the 'Reports' area of the Web Inspector PCI interface, displayed by clicking the 'Reports' tab from the Navigation bar. From this interface, you can:

- **View the scan reports**
- **Submit False Positives**
- **Track the status of Submitted False Positives**
- **Download the entire reports as a zip file by clicking the 'Generate Report Pack' button**.

2.5.7.1 Viewing Scan Reports

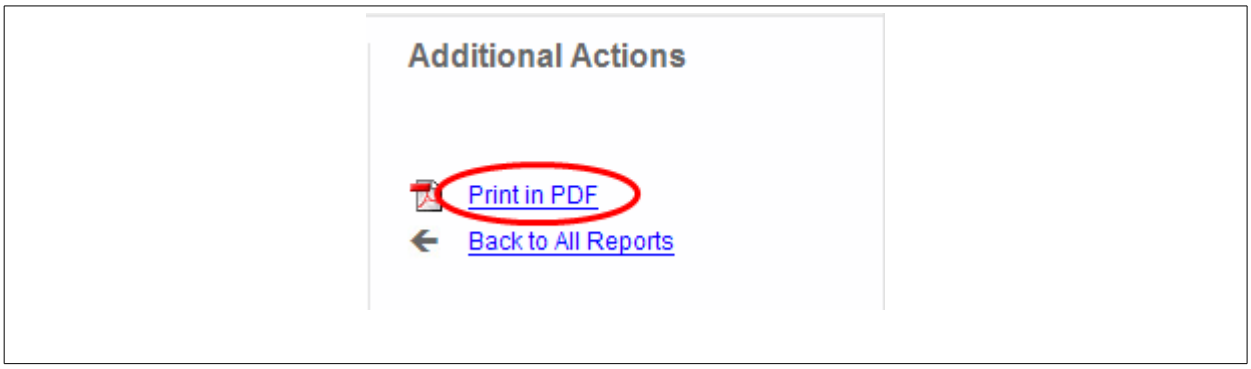
Clicking the 'Scans' link in the Reports area opens the list of the scan reports produced by Web Inspector PCI at the end of each scan.



At the end of each scan Web Inspector PCI produces three types of reports.

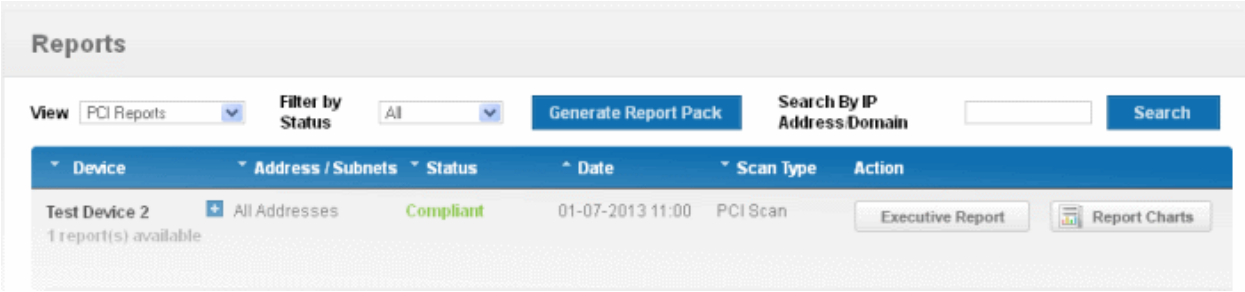
- **Executive Report** - Executive Reports provide an overview of the security status of multiple hosts - allowing administrators to gain an overview of the health of their entire network. **Click here for More Details.**
- **Charts Page** - The charts page displays the scan summary and the bar-graphs and pie diagrams indicating the proportions of vulnerabilities according to their categories. **Click here for More Details**.
- **Vulnerability Report** - Vulnerability Reports are a detailed overview of scans on a single IP/Domain. They include a prioritized list of the vulnerabilities found, expert remediation advice and thousands of cross-referenced online advisories. **Click here for More details.**

Tip: The vulnerability reports and the PCI Compliance reports can be converted into pdf format by clicking the link 'Print in PDF' from the Additional Actions area as shown below.



2.5.7.1.1 Filtering Options

The administrator can filter the reports listed, based on the scan type, status or even the reports pertaining to a specific IP or domain.



The table below describes the filtering options available in this interface.

Filter	Description
View	Enables to filter the reports based on the scan type. E.g. to view only the PCI scan reports, select 'PCI Reports' from the drop-down menu.
Filter by Status	Enables to filter the reports based on success or failure of the scan results.
Search by IP/Domains	Enables to filter the reports pertaining to specific IP or Domain. The administrator can enter the IP address or the Domain name and the reports only for those will be listed.

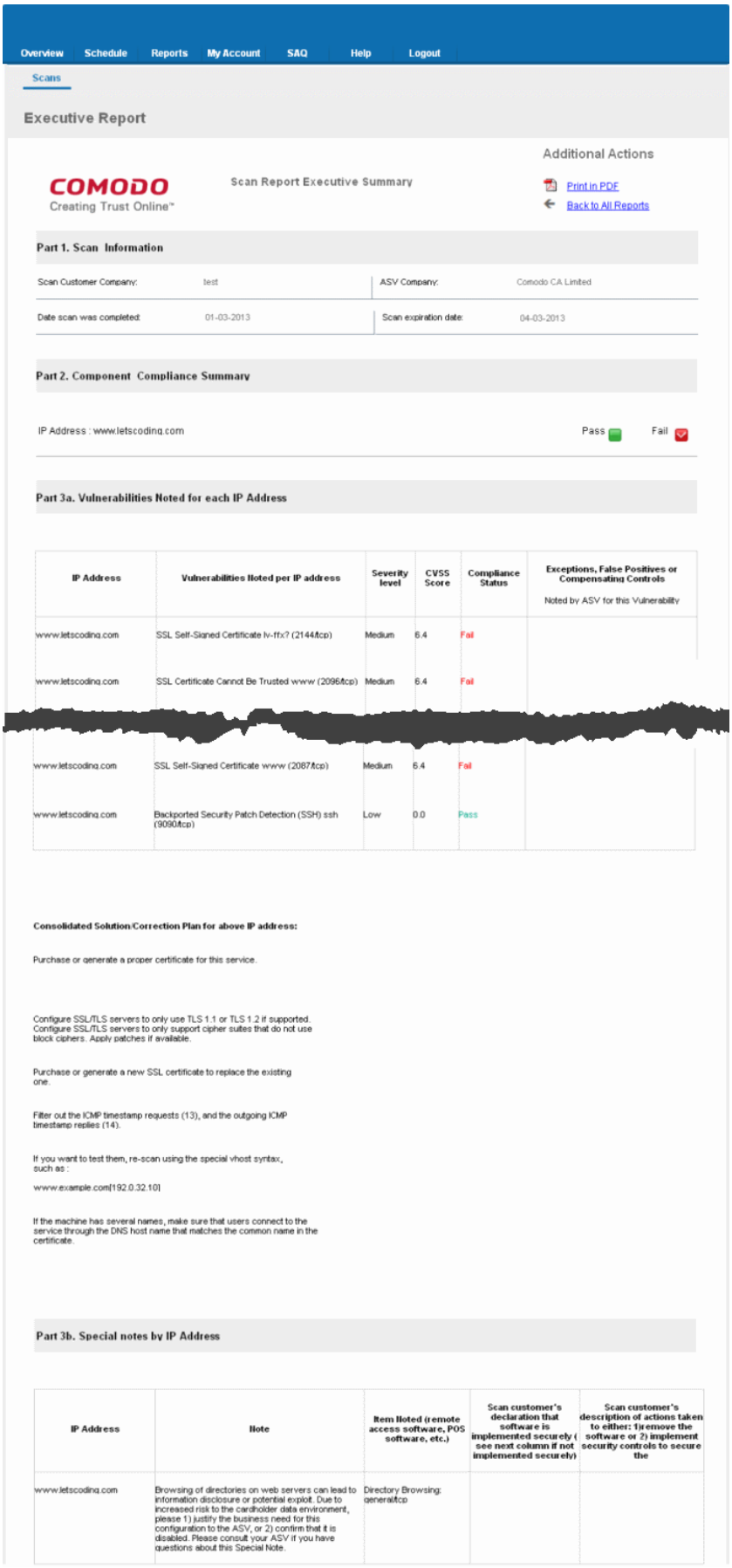
2.5.7.2 Executive Report

An Executive Report is a condensed view of the information available by viewing reports individually, but present it in an more easily digested manner - allowing admins to quickly pick out where insecurities lie and to assess then investigate any surges in the trends.

To view an executive summary of a device, click the Executive Report button in the row.

Tip: You can also click Executive Report button beside the device name from the 'Device List' area to view the report.

An example of an executive report is shown below.



Overview | Schedule | Reports | My Account | SAQ | Help | Logout

Scans

Executive Report

Additional Actions

Print in PDF

Back to All Reports

COMODO Creating Trust Online™

Scan Report Executive Summary

Part 1. Scan Information

Scan Customer Company:	test	ASV Company:	Comodo CA Limited
Date scan was completed:	01-03-2013	Scan expiration date:	04-03-2013

Part 2. Component Compliance Summary

IP Address : www.letscoding.com — Pass — Fail

Part 3a. Vulnerabilities Noted for each IP Address

IP Address	Vulnerabilities Noted per IP address	Severity level	CVSS Score	Compliance Status	Exceptions, False Positives or Compensating Controls Noted by ASV for this Vulnerability
www.letscoding.com	SSL Self-Signed Certificate lv-ffx? (2144/tcp)	Medium	6.4	Fail	
www.letscoding.com	SSL Certificate Cannot Be Trusted www (2096/tcp)	Medium	6.4	Fail	
www.letscoding.com	SSL Self-Signed Certificate www (2087/tcp)	Medium	6.4	Fail	
www.letscoding.com	Backported Security Patch Detection (SSH) ssh (9090/tcp)	Low	0.0	Pass	

Consolidated Solution/Correction Plan for above IP address:

Purchase or generate a proper certificate for this service.

Configure SSL/TLS servers to only use TLS 1.1 or TLS 1.2 if supported. Configure SSL/TLS servers to only support cipher suites that do not use block ciphers. Apply patches if available.

Purchase or generate a new SSL certificate to replace the existing one.

Filter out the ICMP timestamp requests (13), and the outgoing ICMP timestamp replies (14).

If you want to test them, re-scan using the special vhost syntax, such as :

www.example.com[192.0.32.10]

If the machine has several names, make sure that users connect to the service through the DNS host name that matches the common name in the certificate.

Part 3b. Special notes by IP Address

IP Address	Note	Item Noted (remote access software, POS software, etc.)	Scan customer's declaration that software is implemented securely (see next column if not implemented securely)	Scan customer's description of actions taken to either: 1) remove the software or 2) implement security controls to secure the
www.letscoding.com	Browsing of directories on web servers can lead to information disclosure or potential exploit. Due to increased risk to the cardholder data environment, please 1) justify the business need for this configuration to the ASV, or 2) confirm that it is disabled. Please consult your ASV if you have questions about this Special Note.	Directory Browsing: general/tcp		

The Executive report contains the following information:

1. Scan Information	-	Provides information on the Company name of the subscriber, scanning vendor (Comodo CA Ltd.,), date of scan and the scan expiry date.
2. Component Compliance Summary	-	Provides an at-a-glance indication of PCI Compliance status of your systems.
3a. Vulnerabilities noted for each IP address	-	Provides details on types of vulnerabilities identified for each IP address, with their severity level, CVSS base score and compliance status. If no vulnerabilities with a CVSS base score greater than 4.0 (named 'security holes' in Web Inspector PCI) are detected then the scanned IP addresses, hosts and Internet connected devices have passed the test and the report can be submitted to your acquiring bank. If the report indicates 'Fail' on any of the IP address, then the merchant or service provider must re mediate the identified problems and re-run the scan until compliancy is achieved.
3b. Special Notes by IP Address	-	Provides any special details or notes of the vulnerabilities found and any special declarations given by the subscriber.

If the Component Compliance Summary section of your Web Inspector PCI Executive Report indicates a failure in the Compliancy Status, then vulnerabilities with a CVSS base score greater than 4.0 were discovered on your externally facing IP addresses. The accompanying **Vulnerability Report** contains a detailed synopsis of every vulnerability prioritized by threat severity. Each discovered vulnerability is accompanied with solutions, expert advice and cross referenced links to help you fix the problem. You should fix all vulnerabilities identified as a 'Security Hole'.

Furthermore, each report contains a condensed, PCI specific, '**Mitigation Plan**' - a concise, bulleted list of actions that you need to take to achieve compliance.

After completing the actions specified in the Mitigation Plan you should run another scan until the report returns a '**Compliant**' status.

2.5.7.3 Charts Page

The Charts Page contains at-a-glance summary of the scan results on the device at the top and graphical representations of proportions of identified vulnerabilities according to their categories.

To view the Chart Page of a Device, click the Report Charts button in the row of the Device.

Tip: You can also click the charts page button beside the Device name from the 'Device List' area to view the page.

An example of the Charts Page is given below.

Summary

The summary table provides the list of IP addresses/Domains pertaining to the device scanned and the number of Security Holes, Security Warnings and Security Notes identified in each IP/Domain.

Device name: Test device					
IP Address/Domain scanned		**Security Holes**	**Security Warnings**	**Security Notes**	**Total**
www.letscoding.com		0	51	52	103
IP Address/Domain	**Top 5 Risk Categories**				
www.letscoding.com	General (103)				

Scan History

The scan history section contains bar-graphs and pie diagrams indicating the proportions of vulnerabilities according to their categories.

Vulnerabilities by Host - A graphical representation of the information regarding the security holes found, security warnings, and security notes per host. Each category is represented by a different color. Pointing the mouse cursor over a bar in the graph displays the count of the respective item found. The graph enables administrators to gain both an overview of the overall of health their network and to monitor the security of individual hosts within that network.

Vulnerabilities by Severity - A pie-diagram representation of proportions of security holes, security warnings, and security notes found for the entire device. Pointing the mouse cursor over a sector in the diagram displays the percentage proportion of the respective item found.

Security Holes by Category - A pie-diagram representation of proportions of security holes of different categories like Trojan Horses, file R/W exploits, Remote Procedure Call (RPC) exploits etc., found for the entire device. Pointing the mouse cursor over a sector in the diagram displays the number and percentage proportion of the respective item found.

Security Warnings by Category - A pie-diagram representation of proportions of security warnings of different categories like Firewall exploits etc., found for the entire device. Pointing the mouse cursor over a sector in the diagram displays the number and percentage proportion of the respective item found.

Vulnerabilities Trend - A graphical representation of the comparison of the vulnerabilities found in the IPs/Domains of the device during the last five scans. This gives the trend of the reduction in the number of vulnerabilities in successive scans because of the remediation actions taken at the end of each scan. Each IP/Domain in a device is indicated with a different color. Pointing the mouse cursor over a bar in the graph displays the number of the vulnerabilities found in the respective IP/Domain in the respective scan. This graph also indicates the administrator on the frequency of the scans and enables to check whether scans are being conducted according to their pre-defined scan schedule.

Scan Time per Host - A graphical representation of the time taken for scanning each IP/Domain in the device. Pointing the mouse cursor over a bar in the graph displays the time taken fr the IP/Domain in hours.

Compliance per Host - A graphical representation of the PCI compliance adhered by the IPs/Domains of the device. Pointing the mouse cursor over a bar in the graph displays the number of security holes, warnings and false positives reported.

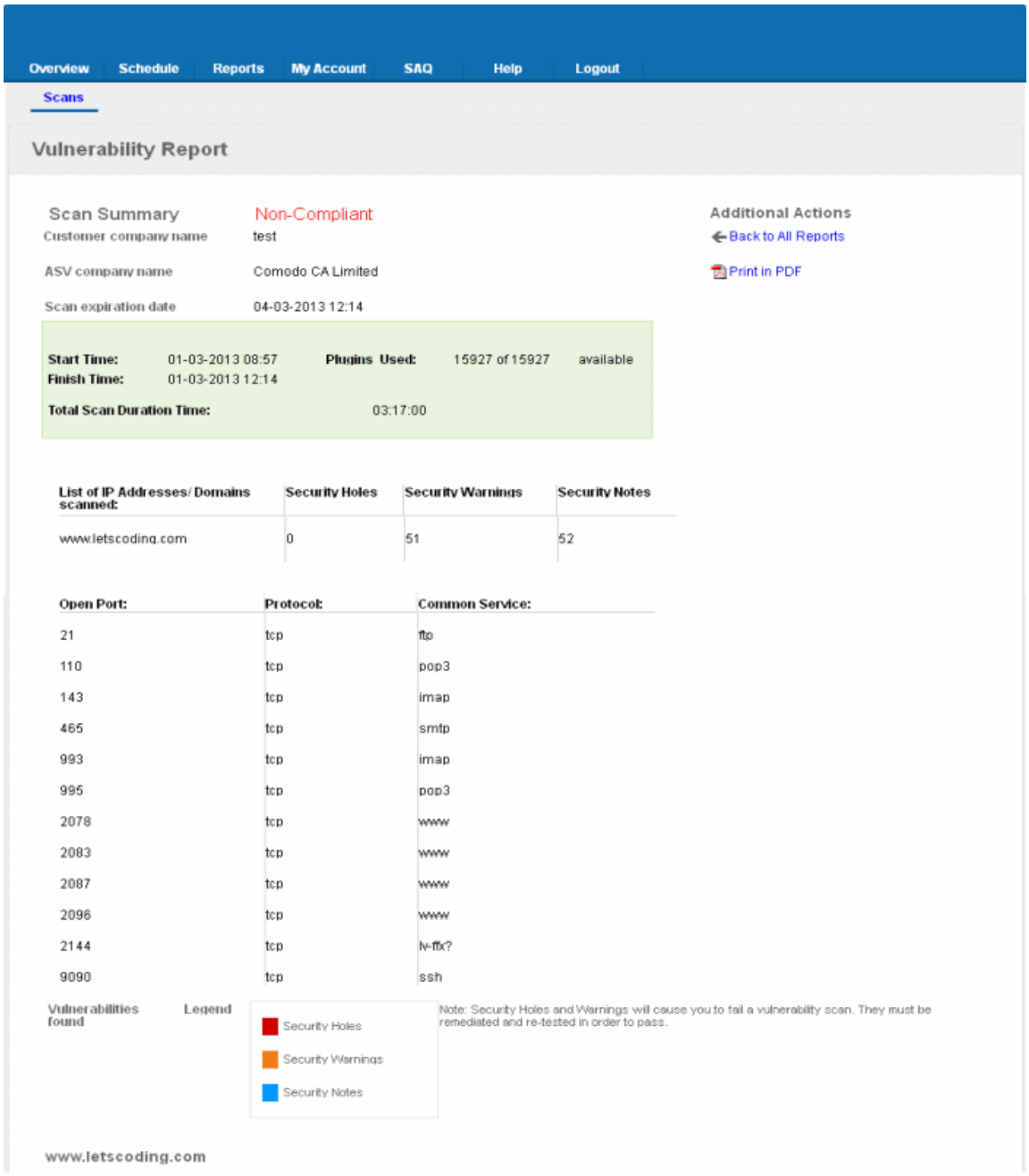
2.5.7.4 Vulnerability Report

A Vulnerability Report provides a detailed overview of scan results on a single IP/Domain. It includes a prioritized list of the vulnerabilities found, expert remediation advice and thousands of cross-referenced online advisories.

To view a Vulnerability Report of a IP/Domain, click the '+' beside the respective device and then click the 'Vulnerability Report' button in the row of the respective IP/Domain.

Tip: You can also click Vulnerability Report button beside the IP/Domain name from the 'Device List' area to view the report.

An example of the Vulnerability Report is given below.



The Vulnerability Report consists of a summary of the scan details and the prioritized list of the vulnerabilities found.

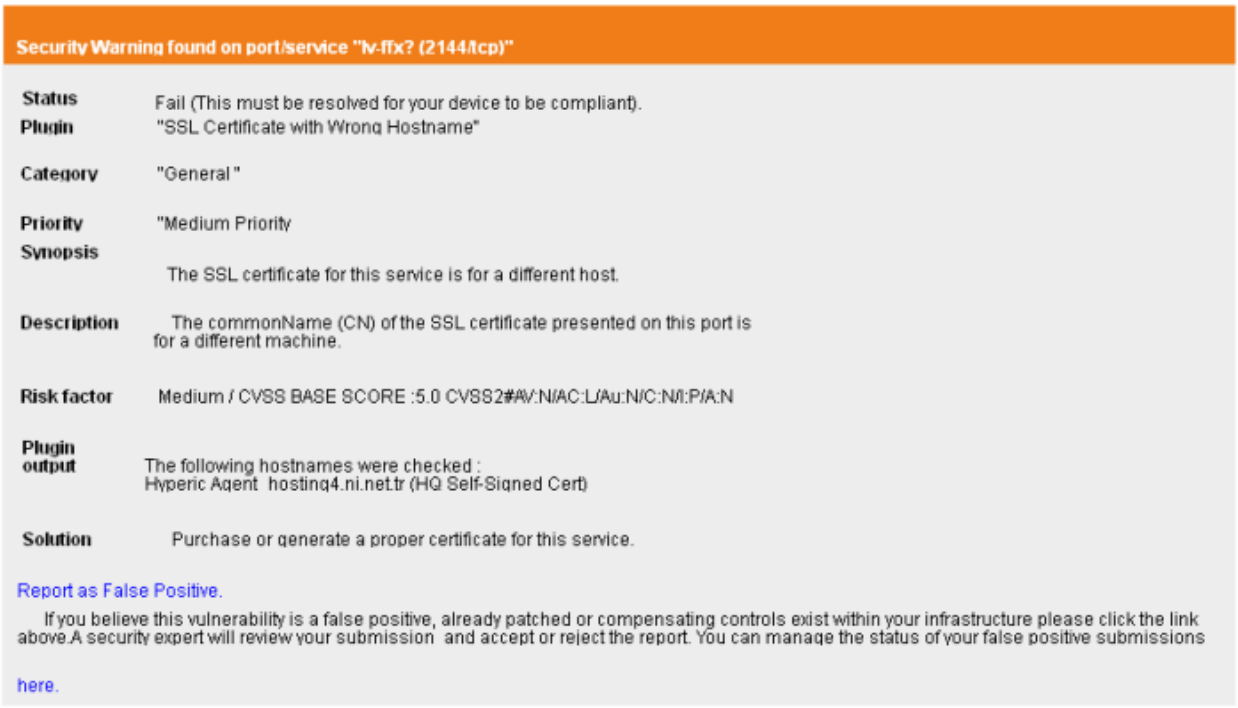
Scan Summary

The scan summary contains the following details:

- **Company Name** - The Company name of the subscriber.
- **ASV company name** - Name of the approved scanning vendor (Comodo CA Ltd.,)
- **Scan expiration date** - The expiry date of the scan for which the report was generated.
- **Start Time** - The date and time at which the scan was started.
- **Finish Time** - The date and time at which the scan was completed.
- **Total Scan Duration Time** - The total time taken for the scan.
- **Plugins Used** - The number of vulnerability plug-ins deployed during the scan.
- A table providing the number of Security Holes, Security Warnings and Security Notes identified the IP/Domain.

- A list of open ports detected on the IP/Domain and their respective communication protocols and dedicated services.

Following the scan summary, the identified vulnerabilities are listed with their descriptions, priority, the plug-in that identified the flaw, risk factor, expert advices for remediation etc. An example is shown below.



The title bar indicates the type of the vulnerability and the port/service in which it is identified.

Status - Indicates the status of the device whether it has passed or failed.

Plugin The vulnerability plug-in that has detected the vulnerability.

Category - The category of the flaw that is responsible for the vulnerability.

Priority - Indicates the priority at which the vulnerability has to be re mediated.

Synopsis - The Synopsis in the report provides a short description of the vulnerability. For example: if the protocol is encrypted, if debugging is enabled etc.

Description - A detailed description of the vulnerability and its effects. This section also contains links for additional reading about the vulnerability.

Risk Factor - Shows the severity of the vulnerability according to the CVSS score. The NVD provides severity rankings of "Low", "Medium", and "High" in addition to the numeric CVSS scores but these qualitative rankings are simply mapped from the numeric CVSS scores:

- Vulnerabilities are labeled "Low" severity if they have a CVSS base score of 0.0-3.9.
- Vulnerabilities will be labeled "Medium" severity if they have a base CVSS score of 4.0-6.9.
- Vulnerabilities will be labeled "High" severity if they have a CVSS base score of 7.0-10.0.

Additional Information - Provides CVE index of standardized names for vulnerabilities and other information security exposures, BID numbers and other references to the vulnerability.

CVE aims to standardize the names for all publicly known vulnerabilities and security exposures.

Examples of universal vulnerabilities include:

- phf (remote command execution as user "nobody")
- rpc.ttdbserverd (remote command execution as root)

- world-write able password file (modification of system-critical data)
- default password (remote command execution or other access)
- denial of service problems that allow an attacker to cause a Blue Screen of Death
- smurf (denial of service by flooding a network)

Examples of exposures include:

- running services such as finger (useful for information gathering, though it works as advertised)
- inappropriate settings for Windows NT auditing policies (where "inappropriate" is enterprise-specific)
- running services that are common attack points (e.g., HTTP, FTP, or SMTP)
- use of applications or services that can be successfully attacked by brute force methods (e.g., use of trivially broken encryption, or a small key space)

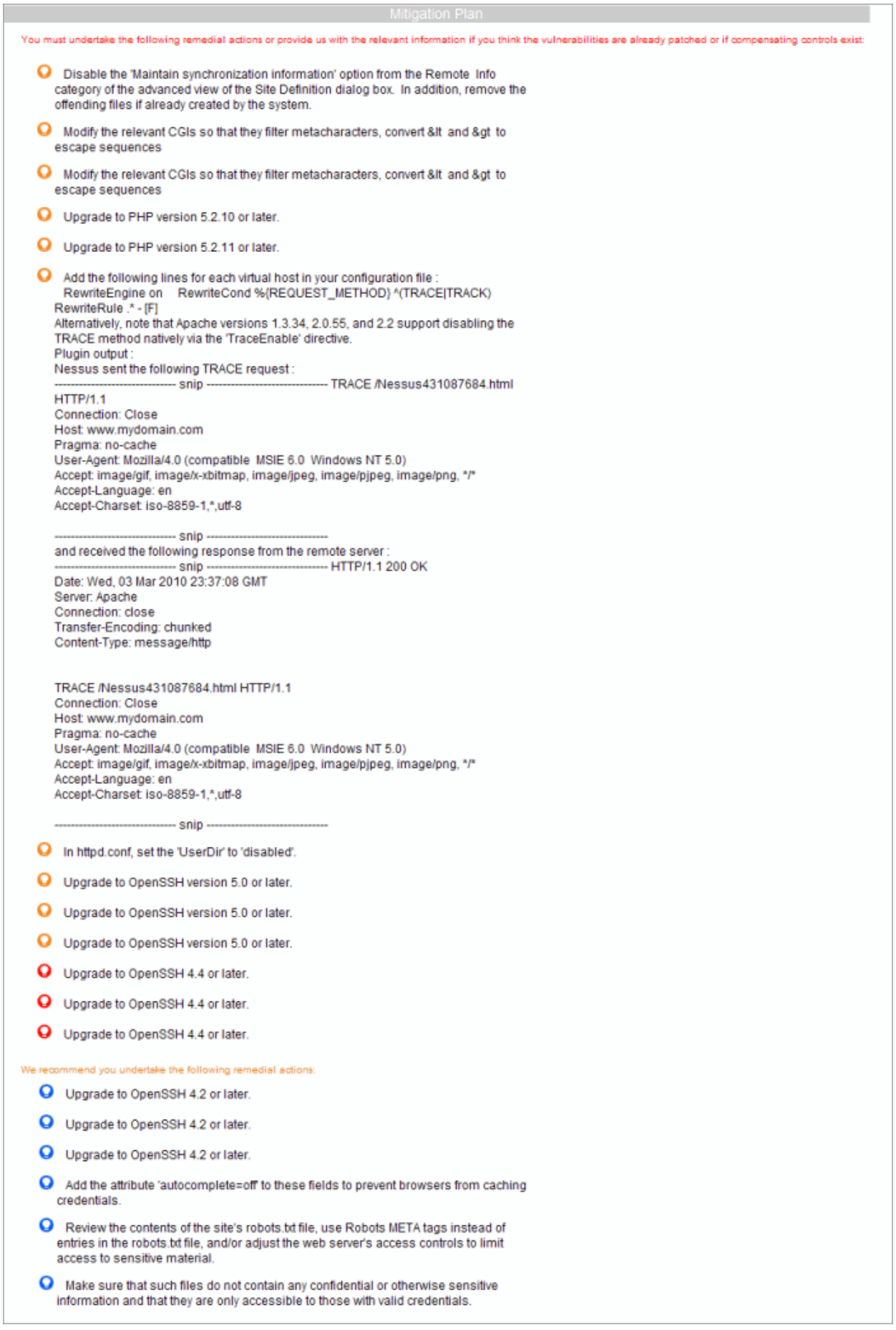
Each CVE name includes the following:

- CVE identifier number (i.e., "CVE-1999-0067").
- Indication of "entry" or "candidate" status.
- Brief description of the security vulnerability or exposure.
- Any pertinent references (i.e., vulnerability reports and advisories or OVAL-ID).

Solution - Provides expert advices on the action to be taken by giving a set of rules to be configured for the specific port/service vulnerability. This gives the best suited remediation measure for the vulnerability found.

2.5.7.5 Mitigation Plan

Web Inspector PCI will conduct an in-depth audit of your network to detect vulnerabilities on your network and web-server. If your servers fail the test, you will find lots of helpful advisories in the scan report that will help you patch the security holes.



Mitigation Plan

You must undertake the following remedial actions or provide us with the relevant information if you think the vulnerabilities are already patched or if compensating controls exist:

- Disable the 'Maintain synchronization information' option from the Remote Info category of the advanced view of the Site Definition dialog box. In addition, remove the offending files if already created by the system.
- Modify the relevant CGIs so that they filter metacharacters, convert < and > to escape sequences
- Modify the relevant CGIs so that they filter metacharacters, convert < and > to escape sequences
- Upgrade to PHP version 5.2.10 or later.
- Upgrade to PHP version 5.2.11 or later.
- Add the following lines for each virtual host in your configuration file :
  RewriteEngine on RewriteCond %{REQUEST_METHOD} ^(TRACE|TRACK)
  RewriteRule .* - [F]
  Alternatively, note that Apache versions 1.3.34, 2.0.55, and 2.2 support disabling the TRACE method natively via the 'TraceEnable' directive.
  Plugin output :
  Nessus sent the following TRACE request :
  ---------- snip ---------- TRACE /Nessus431087684.html HTTP/1.1
  Connection: Close
  Host: www.mydomain.com
  Pragma: no-cache
  User-Agent: Mozilla/4.0 (compatible MSIE 6.0 Windows NT 5.0)
  Accept: image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, image/png, */*
  Accept-Language: en
  Accept-Charset: iso-8859-1,*,utf-8

  ---------- snip ----------
  and received the following response from the remote server :
  ---------- snip ---------- HTTP/1.1 200 OK
  Date: Wed, 03 Mar 2010 23:37:08 GMT
  Server: Apache
  Connection: close
  Transfer-Encoding: chunked
  Content-Type: message/http

  TRACE /Nessus431087684.html HTTP/1.1
  Connection: Close
  Host: www.mydomain.com
  Pragma: no-cache
  User-Agent: Mozilla/4.0 (compatible MSIE 6.0 Windows NT 5.0)
  Accept: image/gif, image/x-xbitmap, image/jpeg, image/pjpeg, image/png, */*
  Accept-Language: en
  Accept-Charset: iso-8859-1,*,utf-8

  ---------- snip ----------
- In httpd.conf, set the 'UserDir' to 'disabled'.
- Upgrade to OpenSSH version 5.0 or later.
- Upgrade to OpenSSH version 5.0 or later.
- Upgrade to OpenSSH version 5.0 or later.
- Upgrade to OpenSSH 4.4 or later.
- Upgrade to OpenSSH 4.4 or later.
- Upgrade to OpenSSH 4.4 or later.

We recommend you undertake the following remedial actions:

- Upgrade to OpenSSH 4.2 or later.
- Upgrade to OpenSSH 4.2 or later.
- Upgrade to OpenSSH 4.2 or later.
- Add the attribute 'autocomplete=off' to these fields to prevent browsers from caching credentials.
- Review the contents of the site's robots.txt file, use Robots META tags instead of entries in the robots.txt file, and/or adjust the web server's access controls to limit access to sensitive material.
- Make sure that such files do not contain any confidential or otherwise sensitive information and that they are only accessible to those with valid credentials.

That's why EACH report contains a condensed, PCI specific, 'Mitigation Plan' - a concise, bulleted list of actions that you need to

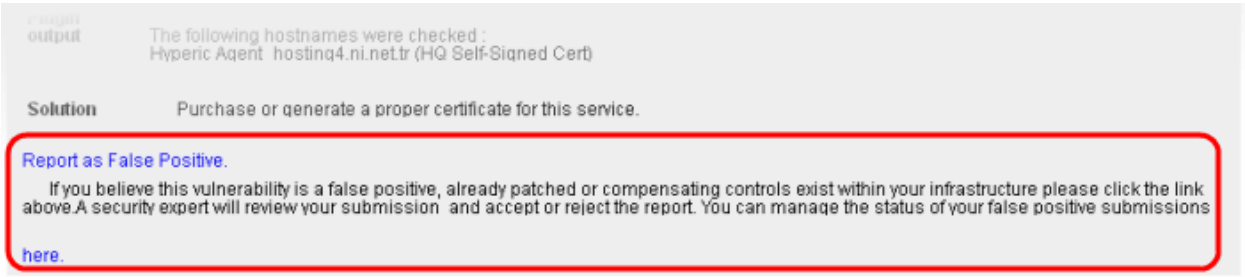
take to achieve compliance. The mitigation plan is available at the end of the list of the vulnerabilities.

Tip: You an directly view the mitigation plan by clicking the link Jump to Remediation Plan from the 'Additional Actions' area.

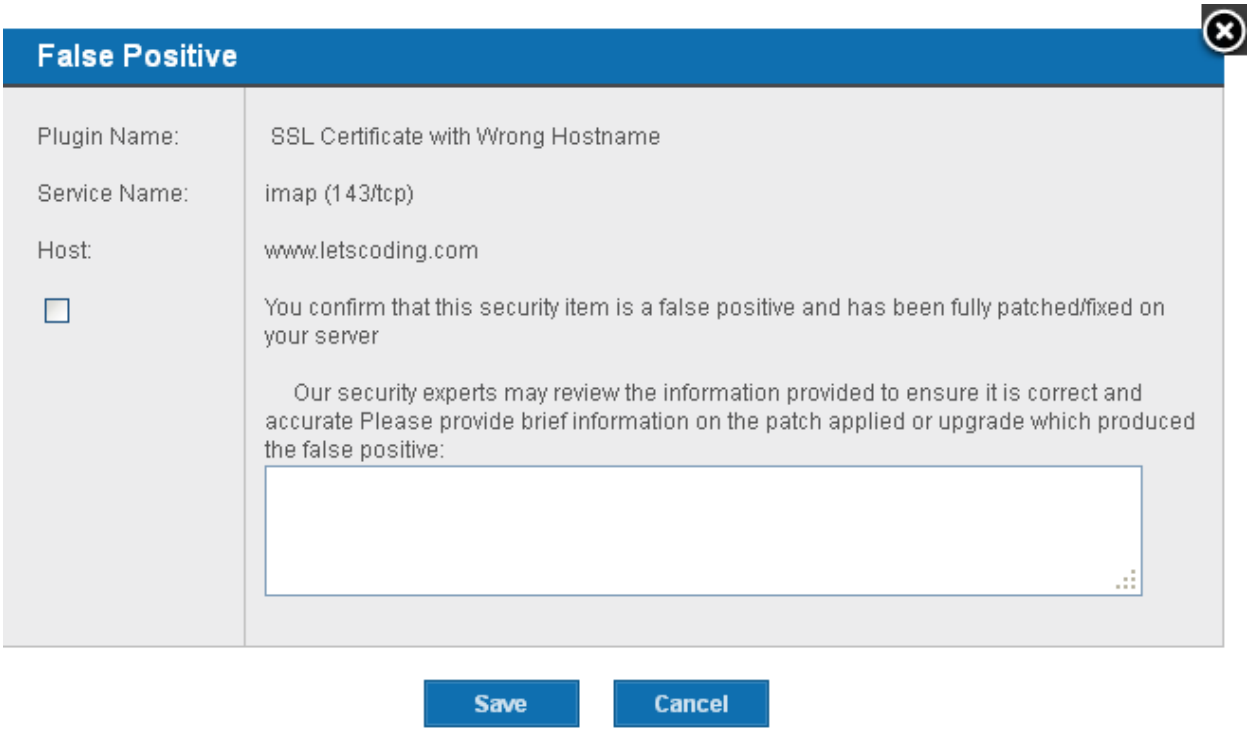
2.5.7.6 Reporting False Positives

A false positive exists when Web Inspector PCI incorrectly detects a Security Hole (vulnerability with a CVSS base score greater than 4.0) or if compensating controls exist elsewhere in the network's security infrastructure to offset or nullify the vulnerability.

Administrators have the ability to submit suspected false positives to Comodo from with the security advisory itself (see below)



If you think this is a legitimate false positive, click the 'Report as False Positive' link or here 'link' shown above. This will open the false positive reporting dialog. (shown below).



- Next, check the box 'You confirm that this security item is a false positive and has been fully patched/fixed on your server'.
- **Important** - administrators must include information in the text box detailing the patch or compensating control that they have deployed. If this space is left blank then the request will be automatically rejected
- Click 'Save' to submit the report to the Web Inspector PCI technicians for analysis and verification. The advisory will contain the following message to indicate that your submission is under review:

Our support team will review the information provided to ensure it is satisfactory.

The administrator can check the status of the submitted false positive at any time. **Click here for more details**.

If Confirmed as false positive by our technicians - This security hole will no longer count against your IP address/Domain. Genuine false positives are *automatically* removed from the list of security holes from which your PCI report is derived.

Your **Host Compliancy Status** will be **automatically** updated in your **Executive Report.** - ***You do not need to run another scan.***

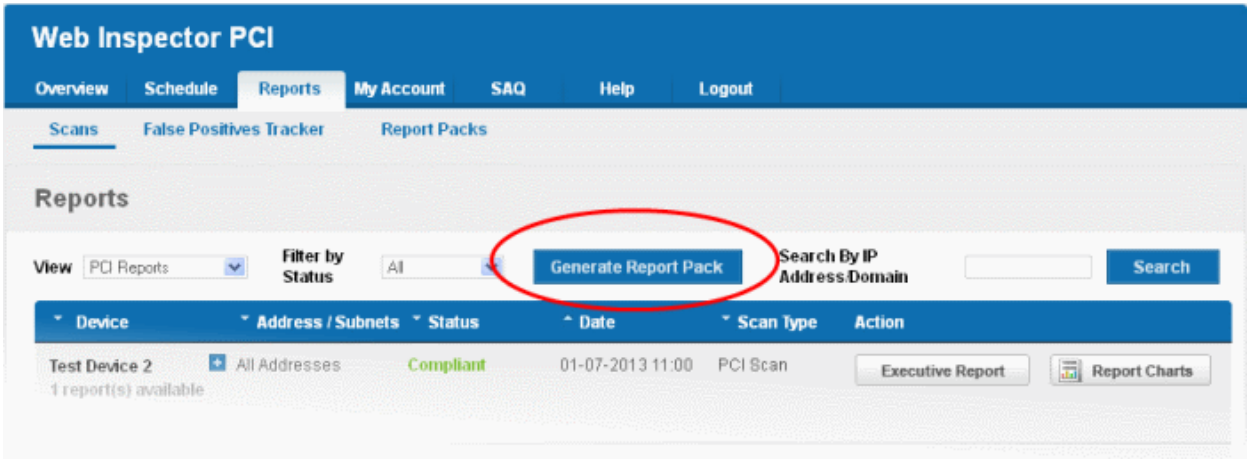
For example - If this false positive represented the only security hole on your host, then your PCI report will change from 'Not Compliant' to 'Compliant' and you can immediately download it.

2.5.7.7 Downloading Reports Pack

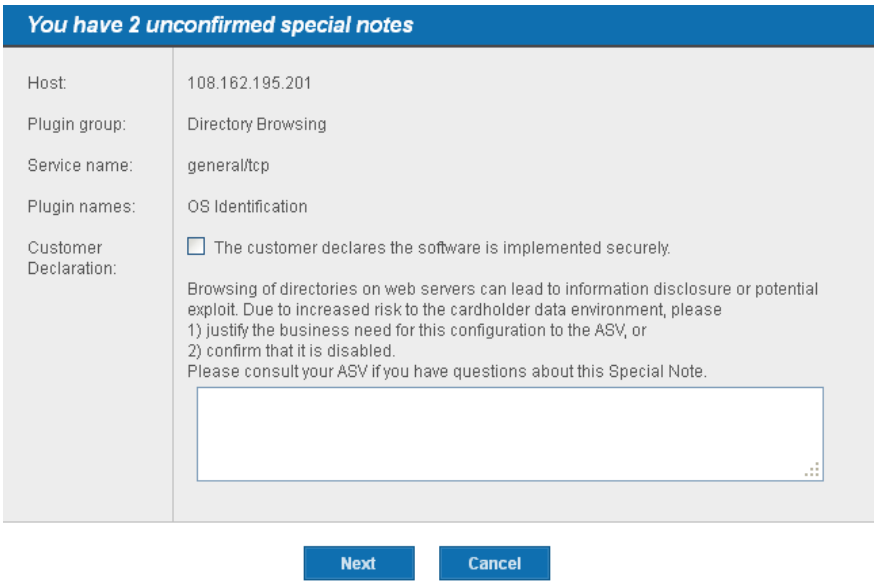
The Administrators can download all the reports in pdf format as a zip file by clicking the 'Generate Report Pack' button in the Reports > Scans interface.

The Report Pack will contain Executive Report, Vulnerability Report and the Attestation Scan Compliance report of the PCI scans executed within the past 90 days. These scan reports should be submitted to the acquiring bank or payment bank according to their instructions, to demonstrate compliance.

To download the report pack, click the 'Generate Report Pack' button from the 'Reports' area.

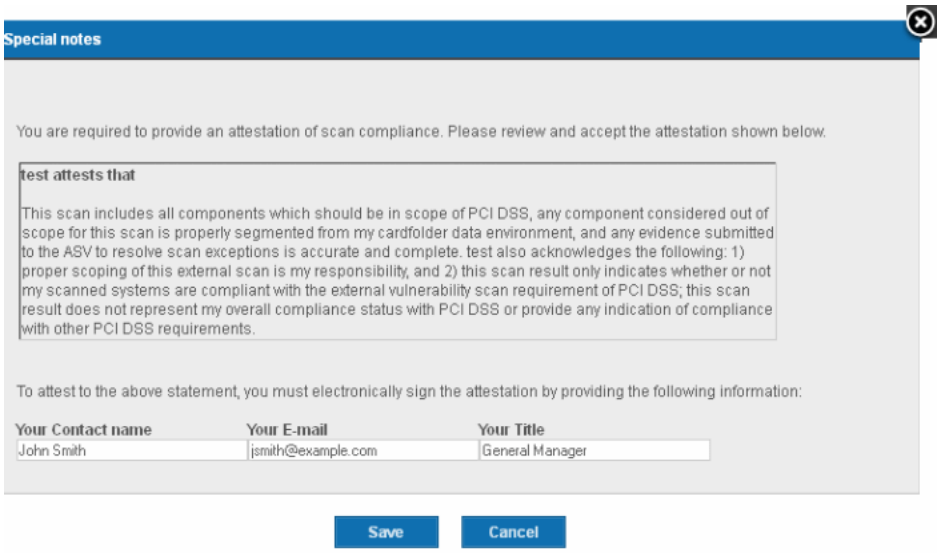


If some unresolved security notes are present in the report, the following warning will be displayed:



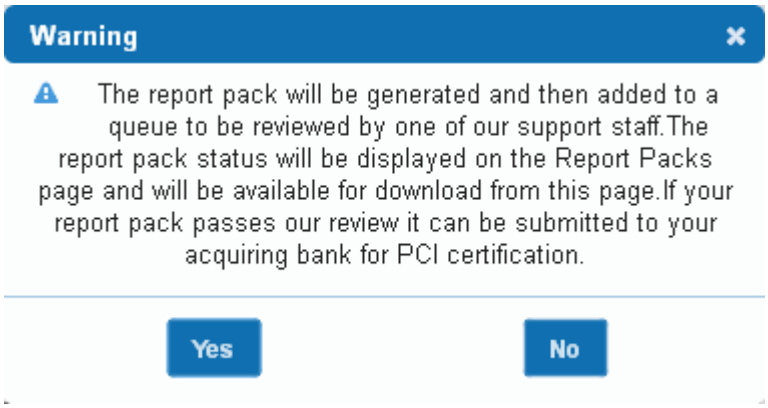
Address the issue or confirm that the security notes are taken care by selecting the check box and click 'Next'.

An attestation screen will appear.



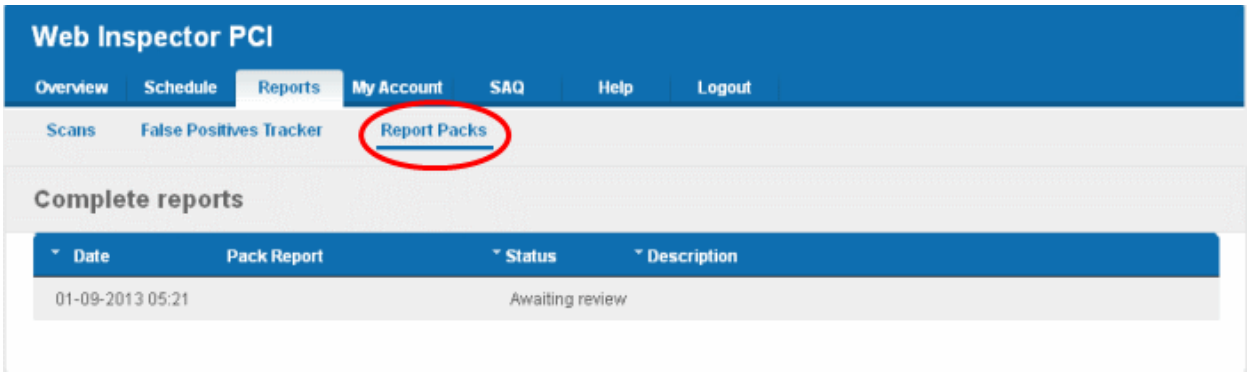
- Read the Attestation statement and fill your Contact name, email address and your role in the subscribing Organization, as a token of digitally signing the attestation form and click 'Next'.

Immediately, the report pack generation will be started. On completion, your report pack will be reviewed by our support staff and will be passed on for download. This will be indicated by a dialog.

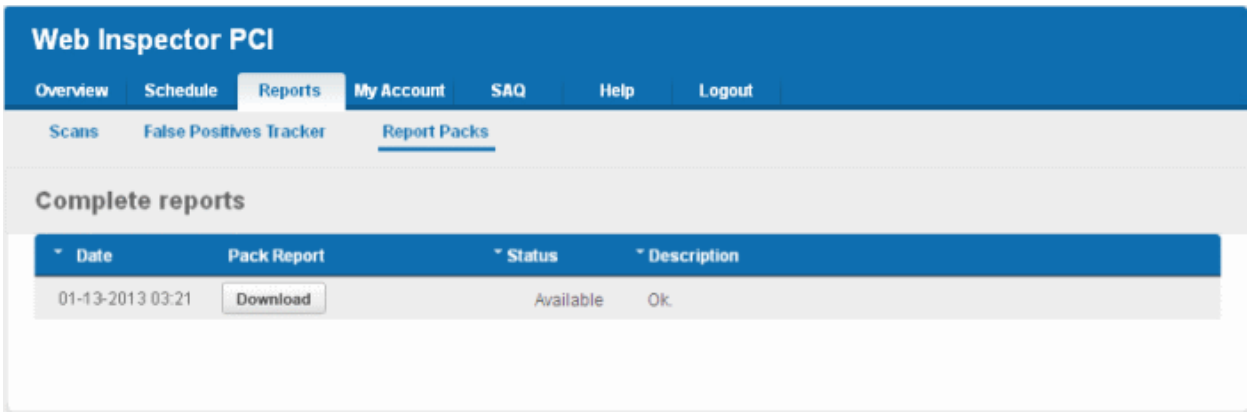


- Click 'Yes'.

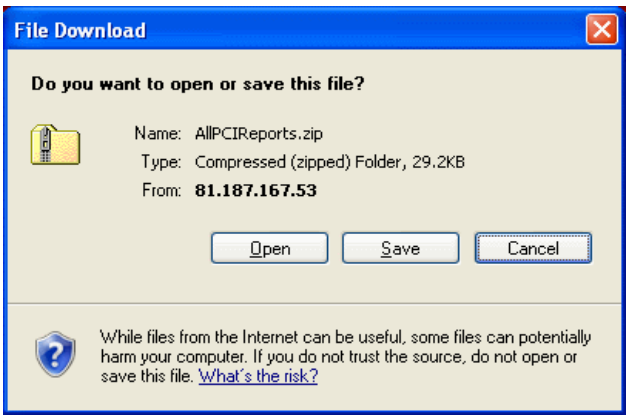
To check your report pack status, click the “Report Packs” tab in the 'Reports' area. The status of your requested report pack will be displayed.



Once the pack is generated and reviewed by our PCI CSS approved support staff, it will be available under the same tab for download.

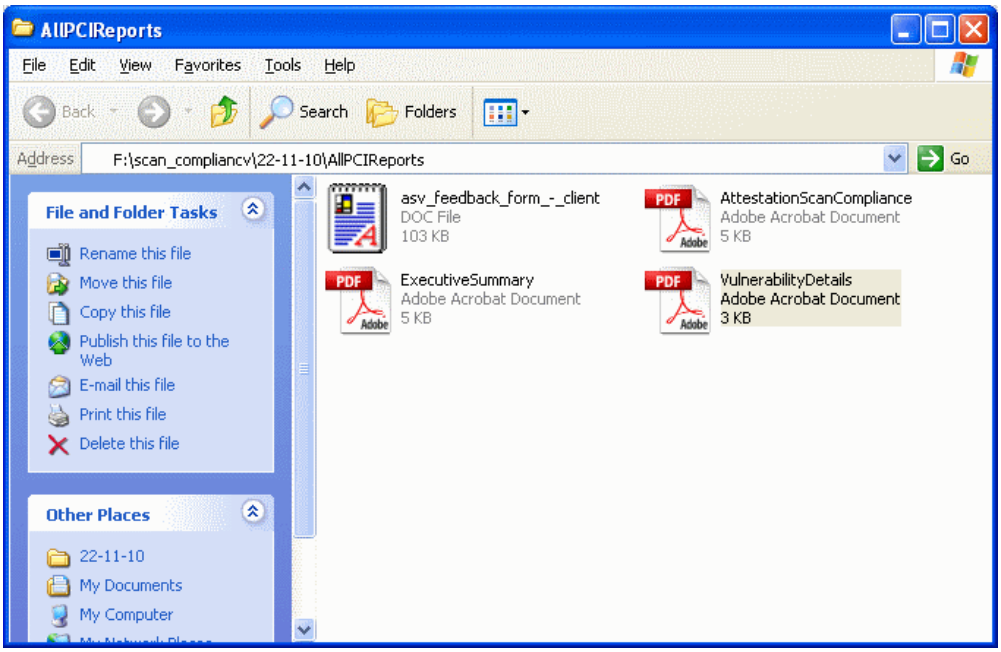


- Click the 'Download' button. The file download dialog will appear.



- Save the file in a desired location.

This report pack will contain pdf files of Attestation of Scan Compliance report, Executive Summary, and the Vulnerability Details and the of the PCI scans executed within the past 90 days.

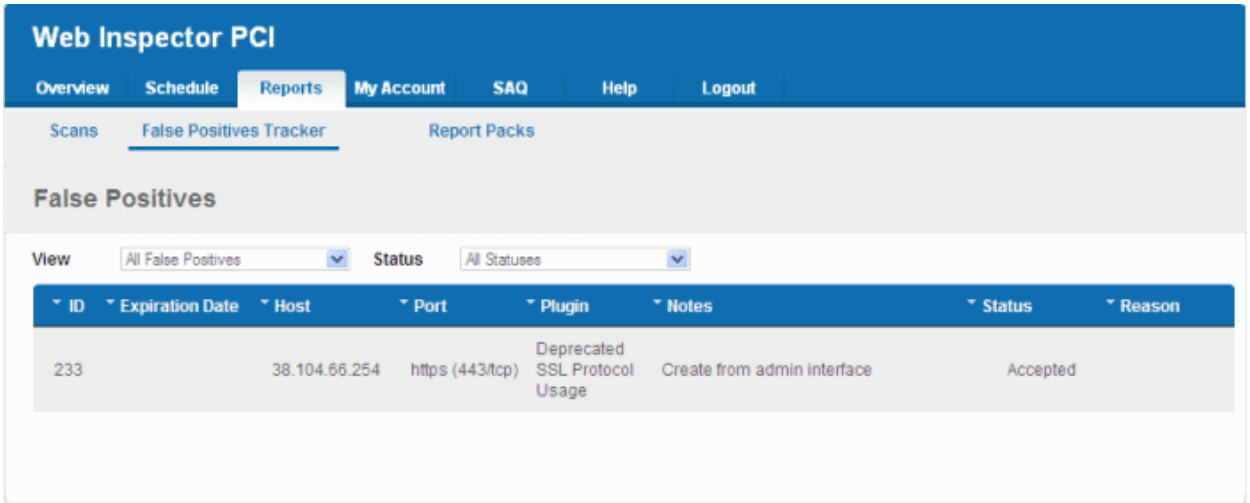


These scan reports should be submitted to the acquiring bank or payment bank according to their instructions, to demonstrate compliance.

Also, the report pack contains an ASV Feedback form to be filled up and sent to the PCI SSC at **asv@pcisecuritystandards.org**, as a feedback for the scanning service provided by Comodo, the Approved Scanning Vendor.

2.5.7.8 Tracking Status of Submitted False Positives

Web Inspector PCI allows the administrator to track the status of the false positives submitted from the 'Reports' area. To view the status, click the False Positives Tracker link from the 'Reports' area.



Filtering Options

The administrator can filter the listed false positives, based on the scan type and status.

- Click the drop-down arrow beside 'View' to select the false positives based on scan types. To view the false positives submitted for PCI scans, select 'PCI'.
- Click the drop-down arrow beside 'Status' to select the false positives based on its status.

The following table provides description of information columns in this area.

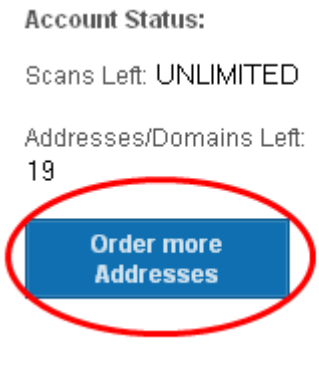
Column	Description
ID	The identity number of the submitted false positive
Expiration Date	Expiration date of the scan
Host	The IP/Domain for which the vulnerability was detected and submitted as false positive
Port	The details of the port in which the vulnerability was found
Plugin	Details of the HackerGuardian Plug-in used to test for a specific vulnerability
Notes	Notes entered by the administrator at the time of submission
Status	Indicates the review status or whether accepted or rejected by the Administrator or the Comodo support team after validation
Reason	The reason for accepting or rejecting the false positive

2.5.8 Purchasing Additional IP Packs

The Web Inspector PCI interface allows administrators to add additional IP addresses/Domains to their license at any time.

To buy additional IP addresses/domains

1. Click on the 'Order more Addresses' button in the Account Status area of the interface as shown below.



You will be taken to the product purchase page. Select your subscription pack and complete the purchase procedure.

The ability to scan the additional IP addresses will be automatically added to your license.

2.6 Web Inspector PCI FAQs

- **Web Inspector PCI Services - General FAQ**
- **Web Inspector PCI Services - Technical FAQ**
- **PCI FAQ**

2.6.1 Web Inspector PCI Services - General FAQ

- **What's the difference between the Web Inspector PCI services?**
- **Why do I need vulnerability scanning if I have an SSL certificate?**
- **Is there a User Manual for Web Inspector PCI?**

What's the difference between the Web Inspector PCI services?

Web Inspector PCI Scan Compliancy

The PCI Scan Control Center is an on-demand, vulnerability assessment scanning solution to enable merchants and service providers to achieve PCI scan compliance.

After each scan, users receive a comprehensive vulnerability report detailing any security issues with remediation advice and advisories to help fix them.

Following a successful scan (no vulnerabilities rated higher than CVSS base score 4.0), merchants receive an official PCI compliance report that can be sent to an acquiring bank.

The Standard version enables merchants to run 10 PCI scans per quarter on up to 5 IP addresses using the full complement of over 21,000 individual vulnerability tests. The Enterprise version is a more powerful and flexible service which provides for up to 100 scans per quarter on 20 IP addresses.

Web Inspector Free PCI Scan

The Free PCI Scan service is valid for 90 days and allows merchants to achieve PCI scan compliancy free of charge. The service contains all the functionality of the Scan Compliancy but restricts the user to 5 PCI scans per quarter on a maximum of 3 separate IP addresses. The service generates an official 'PCI Compliant' report after every successful scan.

Why do I need vulnerability scanning if I have an SSL certificate?

SSL certificates do not secure a web server from malicious attacks or intrusions.
High assurance SSL certificates such as InstantSSL provide the first tier of customer security and reassurance, namely:

- A secure connection between the customer's browser and the web server
- Validation that the web site operators are a legitimate, legally accountable organization

However, consumer fears in the light of recent attacks on high profile merchant web sites now mean that businesses need to ensure that their websites are tested and are secure against all known vulnerabilities. Furthermore, organizations such as the Payment Card Industry (PCI) have introduced guidelines that make server vulnerability testing a mandatory requirement. The Web Inspector PCI Scan Compliance service provides merchants with a fast, low cost way of meeting the PCI scanning guidelines.

Is there a User Manual for Web Inpector?

There is an online manual at the following location: **http://help.comodo.com/topic-208-1-490-5111-Introduction-to-Comodo-Web-Inspector.html**

2.6.2 Web Inspector PCI Services - Technical FAQ

- **Do I need to allow the Web Inspector PCI scanning IP address?**
- **I signed up and got the following message: 'No vulnerabilities were found and the host did not respond to any of our checks' - what does this mean?**
- **Scan Compliancy - I have a dynamic IP assigned by my ISP. Can I still use Web Inspector PCI?**
- **I received an email saying new tests were added but Web Inspector PCI still shows the old number. How do I add them?**
- **Does Comodo maintain any statistics about what % of clients consistently a score of 0% on the 'High Risk' threats? Or what % of all commercial servers would have this score?**
- **How do I upgrade from a trial account to the full version?**
- **After upgrading, will I have to re-enter my IP/Domain information?**
- **I am an existing Comodo account holder (e.g. SSL) - can I use my existing Username and Password during purchase?**
- **Explain the password/username system to me.**
- **Can I scan private (internal) IP addresses?**
- **Scan Compliancy: How many concurrent scans can I run?**
- **How many ports does each service test?**
- **I have changed my password, and now cannot login to the Web Inspector website, why?**
- **Scan Compliancy: Does Web Inspector PCI use the latest CVSS v2?**

Do I need to allow the Web Inspector PCI scanning IP address?

In order for the Web Inspector PCI scan to be successful your firewall must be set to allow the IP address the scan is coming from.

The IP ranges that Web Inspector PCI scans originate from are 208.116.56.32/28 and 91.209.196.32/28

I signed up and got the following message: 'No vulnerabilities were found and the host did not respond to any of our checks' - what does this mean?

This can mean one of two things.

Either:

1) The host is currently unreachable.
It could be that the host is unreachable because of a problem with your server.

Quite often, however, it is because your firewall is denying access to the Web Inspector PCI scanner. In order for the Web Inspector PCI scan to be successful your firewall must be set to allow the IP address the scan is coming from.

The IP ranges that Web Inspector PCI scans originate from are 208.116.56.32/28 and 91.209.196.32/28

Or:

2) No services are available on the host and it is secure.

Scan Compliancy: I have a dynamic IP assigned by my ISP. Can I still use Web Inspector PCI?

No. It is not possible to use the Scan Control Service unless you have a static IP.

I received an email saying new tests were added but Web Inspector PCI still shows the old number. How do I add them?

Click the tick at the top of the plug-selections to enable all new tests in the current scan.
This is explained in more detail in the **Account Preferences and Scan Settings**.

Does Comodo maintain any statistics about what % of clients consistently a score of 0% on the 'High Risk' threats? Or what % of all commercial servers would have this score?

Comodo does not maintain any sort of global statistics about the scan results we produce.

How do I upgrade from a trial account to the full version?
Upgrade PCI Scan Control Service

Click 'My Account' and in the 'Comodo Web Inspector Subscriptions' screen click the 'Purchase More Licenses' link.

Or

Upgrade by buying the full version through this link: **http://www.webinspector.com/product_price.php**

Remember to select 'Existing Customer' and use your regular Comodo account username and password to during signup.

After upgrading, will I have to re-enter my IP/Domain information?

For the PCI Scan Control Service any previously validated IP addresses will still be usable.

I am an existing Comodo account holder (e.g. SSL) - can I use my existing Username and Password during purchase?

Yes. You should use the 'Existing Customer Option' and enter your existing Comodo UN/PW during the signup process. You can then also use your Comodo account Password and Username to log into the Web Inspector PCI interface at **https://app.webinspector.com/login**

Explain the password/username system to me.

During signup you created a Comodo account with a Username and Password. This Username and Password has dual functionality:
1. Use it to log into your Comodo account and manage your Comodo account details. You can log in at **http://www.comodo.com**
2. Use it to log into the Web Inspector PCI web-application interface. Do this using the login box at: **https://app.webinspector.com/login**

Also see the online help documentation at: **http://help.comodo.com/topic-208-1-490-5111-Introduction-to-Comodo-Web-Inspector.html**

Can I scan private (internal) IP addresses?

Yes. Internal IP addresses can be scanned if you have a Web Inspector PCI Scan Compliancy Enterprise license. It is not possible to scan internal IPs with the standard license.

Private IPs ranges are defined by RFC 1918 as:

10.0.0.0 - 10.255.255.255 (10/8 prefix)

172.16.0.0 - 172.31.255.255 (172.16/12 prefix)

192.168.0.0 - 192.168.255.255 (192/168/16 prefix)

How many concurrent scans can I run?

The number of concurrent scans you can run is 10% of the number of IP's covered by your license and the maximum number is 25. For example, if the number of IP addresses covered by your license is 50, you can run five concurrent scans on different IP's.

How many ports does each service test?

Different level of services will allow for different total numbers of ports to be scanned. (If you use the Scan Control service, you may define ranges of ports to be scanned within the 'Set Options' page in the 'Port Range' field.)

- The PCI Scan Control Service scan tests up to a total of 65,535 ports - the total number of ports available on your system.
- The Daily and Free services will scan the first 15,000 ports on your system. This is a targeted selection of the most commonly used (and commonly attacked) ports.*

Note that most services run on the reserved ports below 1024 and security industry experts agree that these are the most commonly targeted ports. In some circumstances it will be beneficial to test all 65,535 ports, but administrators should be aware that this will lengthen the scan time.

I have changed my password, and now cannot login to the Web Inspector website, why?

When you change your password there is a delay between changing it, and that change being synchronized with the Web Inspector database.

Please allow 15 minutes for the synchronization to take place after changing your password.

Does Web Inspector PCI use the latest CVSS v2?

Yes. Web Inspector PCI uses the latest Common Vulnerability Scoring System version 2 (CVSS v2). All Web Inspector PCI Scan customers are not impacted by the change from CVSS v1 to v2 as we have already been using v2.

2.6.3 PCI FAQ

- **What is PCI DSS?**
- **What is the Self Assessment Questionnaire?**
- **What are the compliance validation reporting requirements for merchants?**
- **To whom does the PCI regulations apply?**
- **What is defined as 'cardholder data'?**
- **What if a merchant or service provider does not store cardholder data?**
- **Are there alternatives, or compensating controls, that can be used to meet a requirement?**
- **Are there alternatives to encrypting stored data?**
- **What are the compliance validation reporting requirements for merchants?**
- **Do merchants need to include their service providers in the scope of their review?**
- **What is a network security scan?**
- **How often do I have to scan?**
- **What reports are provided by Web Inspector PCI scanning service?**
- **What criteria causes a Pass or Fail on a PCI scan?**
- **What if I fail the PCI scan?**
- **Where can I find and complete the Self-Assessment Questionnaire?**
- **Where can I find a PCI Approved Scanning Vendor capable of providing quarterly PCI vulnerability scans?**
- **What's the deadline for compliance/ When must I begin using the new PCI standards?**
- **What are the penalties for non-compliance with the PCI standards?**
- **Make it easy for me. What do I have to do to become compliant?**

What is PCI DSS?

The Payment Card Industry Data Security Standards (PCI DSS) are a set of 12 requirements developed jointly by Visa, MasterCard, JCB International, Discover and American Express to prevent consumer data theft and reduce online fraud. The PCI DSS represents a multifaceted standard that includes requirements for security management, policies, procedures, network architecture, software design and other critical protective measures.

Compliance and validation of compliance with some or all of the 12 requirements is mandatory for any organization that stores, transmits or processes credit card transactions.

- The exact number of requirements (out of the 12) that any one organization need comply with is dependent on that organization's 'Validation Type'. An organization's Validation Type is determined by precisely how that organization handles credit card data. There are 5 such 'Validation Types' and every organization will that needs to be PCI compliant will be categorized as one of these types. (see table 'Validation Types')
- Once an organization has determined its 'Validation Type' (or the organization has been assigned as a particular validation type by its acquirer) it can complete the Self Assessment Questionnaire (SAQ) and Attestation of Compliance that is appropriate for that 'Validation Type'.

What is the Self Assessment Questionnaire?

The PCI Data Security Standard Self Assessment Questionnaire (SAQ) is a validation tool intended to assist merchants and service providers who are permitted by the payment brands to self-evaluate their compliance with the Payment Card Industry Data Security Standard (PCI DSS).

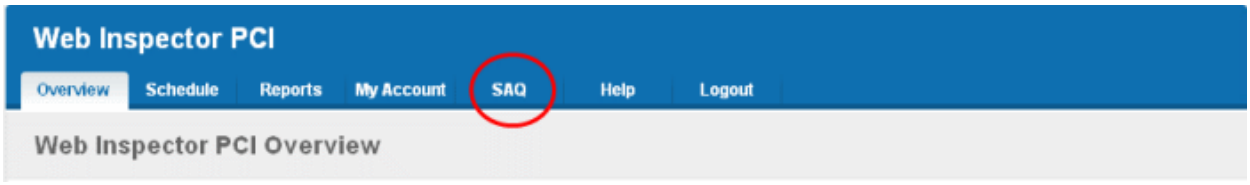
Comodo has simplified this often confusing process with the Web Inspector PCI / HackerGuardian PCI Compliance Wizard - an intuitive web-based application guides merchants through every step of the PCI Self Assessment Questionnaire. Each question is accompanied by expert advice to help the merchant interpret and appropriately answer each question. At the end of the wizard you will find out immediately whether or not your answers qualify your organization as PCI compliant.

The wizard will provide:

- A Questionnaire Summary - Listing security control areas on which you failed compliance
- A custom 'Remediation Plan' for your company containing:
  - A comprehensive list of remedial actions that you need to take to attain full PCI compliance
  - A remediation planning tool enabling task prioritization and project management
  - Links to recommended products and services that will help you cost-effectively resolve non-compliant areas
- A 'ready-to-submit' PCI DSS Self Assessment Questionnaire

To access the wizard

- Click the SAQ tab in the Navigation bar of the Web Inspector PCI interface.



The wizard is a four-step process, where you have to register, select the SAQ type and complete the questionnaire. The final step provides the summary of SAQ.

Your progress is automatically saved after each question - allowing you to log out and return at a later date to complete the questionnaire. Your free account and responses are retained, giving you an opportunity to revise and modify any of your answers. This also allows you to update, schedule and track the progress of outstanding remediation tasks.

What are the compliance validation reporting requirements for merchants?

Under the new PCI standard, the compliance validation requirements of the old VISA CISP and MasterCard SDP programs have been aligned so that merchants need only validate their compliance once to fulfill their obligation to all payment cards accepted. Merchants will provide compliance validation documentation to their Acquirer(s). Compliance validation documentation consists of the appropriate annual self assessment questionnaire (and accompanying attestation of compliance) and possibly the quarterly PCI scan compliance report.

To whom does the PCI regulations apply?

The PCI DSS standards apply to all entities that process, store or transmit cardholder data. This includes all merchants and service providers with external-facing IP addresses handle, store or transmit credit card data. Even if your website does not offer website based transactions (for example, you link to a payment gateway) there are other services that may make card data accessible. Basic functions such as e-mail and employee Internet access will result in the Internet accessibility of a company's network. These seemingly insignificant paths to and from the Internet can provide unprotected pathways into merchant and service provider systems if not properly controlled.

What is defined as 'cardholder data'?

Cardholder data is any personally identifiable data associated with a cardholder. This could be an account number, expiration date, name, address, social security number, etc. All personally identifiable information associated with the cardholder that is stored, processed, or transmitted is also considered cardholder data.

What if a merchant or service provider does not store cardholder data?

If a merchant or service provider does not store cardholder data, the PCI requirements still apply to the environment that transmits or processes cardholder data.

Are there alternatives, or compensating controls, that can be used to meet a requirement?

If a requirement is not, or cannot, be met exactly as stated, compensating controls can be considered as alternatives to requirements defined by the PCI DSS. Compensating controls should meet the intention and rigor of the original PCI requirement, and should be examined by the assessor as part of the regular PCI compliance audit.

Are there alternatives to encrypting stored data?

Stored cardholder data should be rendered unreadable according to requirement 3 of the PCI Security Audit Procedures document. If encryption, truncation, or another comparable approach cannot be used, encryption options should continue to be investigated as the technology is rapidly evolving. In the interim, while encryption solutions are being investigated, stored data must be strongly protected by compensating controls.

An example of compensating controls for encryption of stored data is complex network segmentation that may include the following:

- Internal firewalls that specifically protect the database
- TCP wrappers or firewall on the database to specifically limit who can connect to the database
- Separation of the corporate internal network on a different network segment from production, fire- walled away from database servers.

What are the compliance validation reporting requirements for merchants?

Under the new PCI standard, the compliance validation requirements for merchants of the VISA CISP and MasterCard SDP programs have been aligned so that merchants need only validate their compliance once to fulfill their obligation to all payment cards accepted. Merchants will provide compliance validation documentation to their Acquirer(s). Compliance validation documentation consists of the annual self assessment questionnaire and the quarterly PCI scan compliance report.

Do merchants need to include their service providers in the scope of their review?

No. Service providers are responsible for validating their own compliance with PCI regulations independent of their customers.

What is a network security scan?

A Network Security Scan involves an automated tool that checks a merchant or service provider's systems for vulnerabilities. The tool will conduct a non-intrusive scan to remotely review networks and Web applications based on the external-facing Internet protocol (IP) addresses provided by the merchant or service provider. The scan will identify vulnerabilities in operating systems, services, and devices that could be used by hackers to target the company's private network. As provided by qualified scan vendors such as Comodo the tool will not require the merchant or service provider to install any software on their systems, and no denial-of-service attacks will be performed.

How often do I have to scan?

Every 90 days / once per quarter. Merchants and Service providers should submit compliance documentation (successful scan reports) according to the timetable determined by their acquirer. Scans must be conducted by a PCI Approved Scanning Vendor (ASV). Comodo is a PCI Approved Scanning Vendor.

What reports are provided by Web Inspector PCI scanning service?

Web Inspector PCI Scan Control service provides two reports after each scan - the Audit Report and the PCI Compliance report. The PCI Compliance report is the one you need to submit to your acquiring bank to demonstrate compliance. The Audit Report is a more technical document used to identify and re mediate any security holes.

What criteria causes a Pass or Fail on a PCI scan?

Each post-scan Web Inspector PCI vulnerability report states a PCI compliance status of 'Compliant' or 'Not Compliant' based on the discovery of potential security flaws on your systems.

If no vulnerabilities with a CVSS base score greater than 4.0 are detected then the scanned IP addresses, hosts and Internet connected devices have passed the test and the report can be submitted to your acquiring bank.

If the report indicates 'Non Compliant' then the merchant or service provider must re mediate the identified problems and re-run the scan until compliancy is achieved.

What if I fail the PCI scan?

If your Web Inspector PCI Scan Compliance Report indicates 'NOT COMPLIANT' then vulnerabilities with CVSS base score greater than 4.0 were discovered on your externally facing IP addresses. The accompanying Audit Report contains a detailed synopsis of each vulnerability prioritized by threat severity. Each discovered vulnerability is accompanied with solutions, expert advice and cross referenced links to help you fix the problem. You should fix all vulnerabilities identified as a 'Security Hole'.

Furthermore, each report contains a condensed, PCI specific, 'Mitigation Plan' - a concise, bulleted list of actions that you need to take to achieve compliance.

After completing the actions specified in the Mitigation Plan you should run another scan until the report returns a 'COMPLIANT' status.

Where can I find and complete the Self-Assessment Questionnaire?

Web Inspector PCI provides a free wizard that guide merchants and service providers through each stage of self-assessment questionnaire.
Merchants have to answer all questions with 'Yes' or 'N/A to be considered PCI compliant. Answering 'No' to any question means the merchant or service provider is not compliant. The risk(s) identified by the questionnaire must be re mediated and the questionnaire retaken. After creating a user name and password, merchants can save their progress at any time. Following successful completion of the questionnaire, merchants will be provided with official certification that can be submitted to their acquirer.

Where can I find a PCI Approved Scanning Vendor capable of providing quarterly PCI vulnerability scans?

Right here!! Comodo Web Inspector PCI offers a range of PCI compliance services designed for merchants and service providers of all sizes. Click **here** to find out more.

What's the deadline for compliance/ When must I begin using the new PCI standards?

The Payment Card Industry Standards, Security Audit Procedures, Self-Assessment Questionnaire, and Security Scanning Requirements are effective immediately.

What are the penalties for non-compliance with the PCI standards?

Validation and enforcement is the responsibility of the acquiring financial institution or payment processor.

For each instance of non-compliance, these organizations levy various penalties onto merchants and service providers which can include:

- Increased transaction processing fees
- Fines of more than $500,000 for serious breaches

- Suspension of credit card transaction processing abilities

Comodo Web Inspector provides a range of services that make PCI compliance easy. Find out which service is right for you at **http://www.webinspector.com/**

Make it easy for me. What do I have to do to become compliant?

1. Complete the PCI Self-Assessment Questionnaire using our free online wizard after logging-in into Web Inspector PCI service.

- Preliminary questions will help you to determine which 'validation type' your company fits into and therefore of the 4 self assessments questionnaires you need to complete.
- Each of the questions is accompanied by expert help, information and advice that will help you to both interpret the question correctly and provide the appropriate answer
- Once the wizard is complete, you will receive:
    - A questionnaire summary detailing any control areas on which you failed compliance
- A custom 'Remediation Plan' for your company containing a list of remedial actions that you need to take alongside links to recommended products and services that will help you resolve non-compliant areas.
- A 'ready - to - submit' PCI DSS Self Assessment Questionnaire which will include your completed 'Attestation of Compliance'

2. Conduct a quarterly vulnerability scans on your externally facing IP addresses

If your organization is required to be compliant with section 11.2 of the PCI standard then you will also need to obtain quarterly vulnerability scans on your network.

Web Inspector PCI will conduct an in-depth audit of your network to detect vulnerabilities on your network and web-server. If your servers fail the test, you will find lots of helpful advisories in the scan report that will help you patch the security holes.

After your infrastructure passes the scan, Web Inspector PCI will automatically generate the PCI Compliance report that you need to send your acquiring bank as to demonstrate your compliance.

Find out more about Web Inspector PCI Scanning Services

3. Send the completed questionnaire, attestation and the Scan Compliance report to your acquirer.

Both the PCI Scan Compliant report and the Annual Self Assessment Questionnaire should be turned into your merchant bank. Your merchant bank will then report back to the Payment Card Industry that your company is PCI Compliant.

About Comodo

The Comodo organization is a global innovator and developer of cyber security solutions, founded on the belief that every single digital transaction deserves and requires a unique layer of trust and security. Building on its deep history in SSL certificates, antivirus and endpoint security leadership, and true containment technology, individuals and enterprises rely on Comodo's proven solutions to authenticate, validate and secure their most critical information.

With data protection covering endpoint, network and mobile security, plus identity and access management, Comodo's proprietary technologies help solve the malware and cyber-attack challenges of today. Securing online transactions for thousands of businesses, and with more than 85 million desktop security software installations, Comodo is Creating Trust Online®. With United States headquarters in Clifton, New Jersey, the Comodo organization has offices in China, India, the Philippines, Romania, Turkey, Ukraine and the United Kingdom.

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